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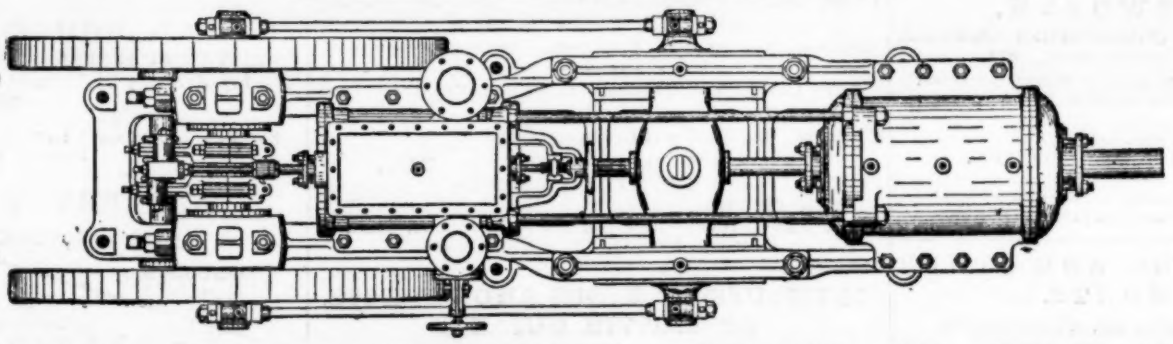

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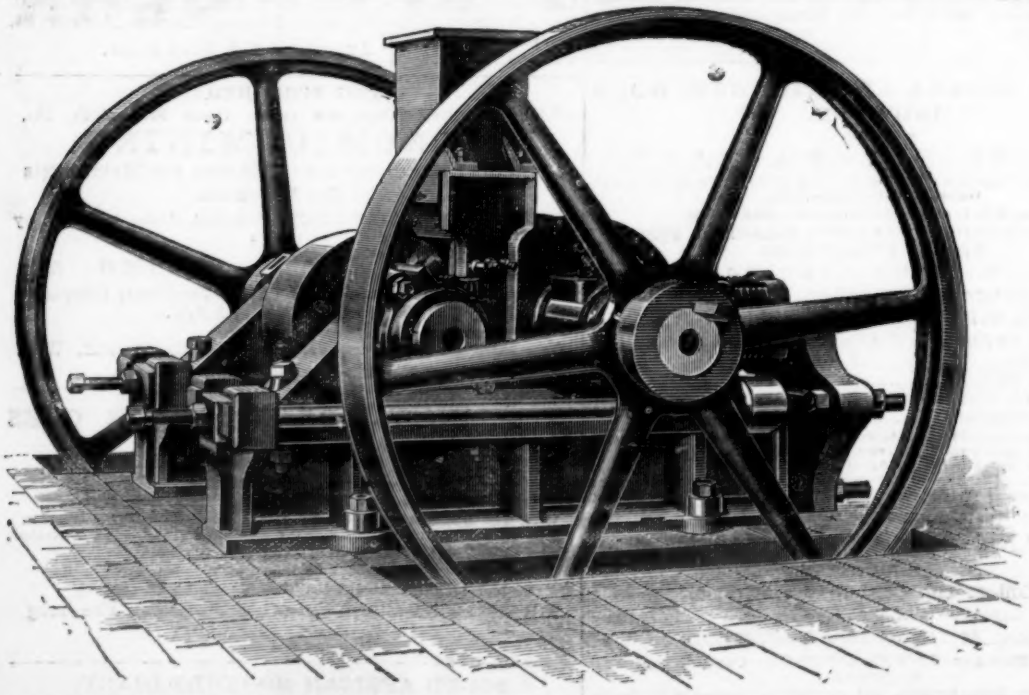

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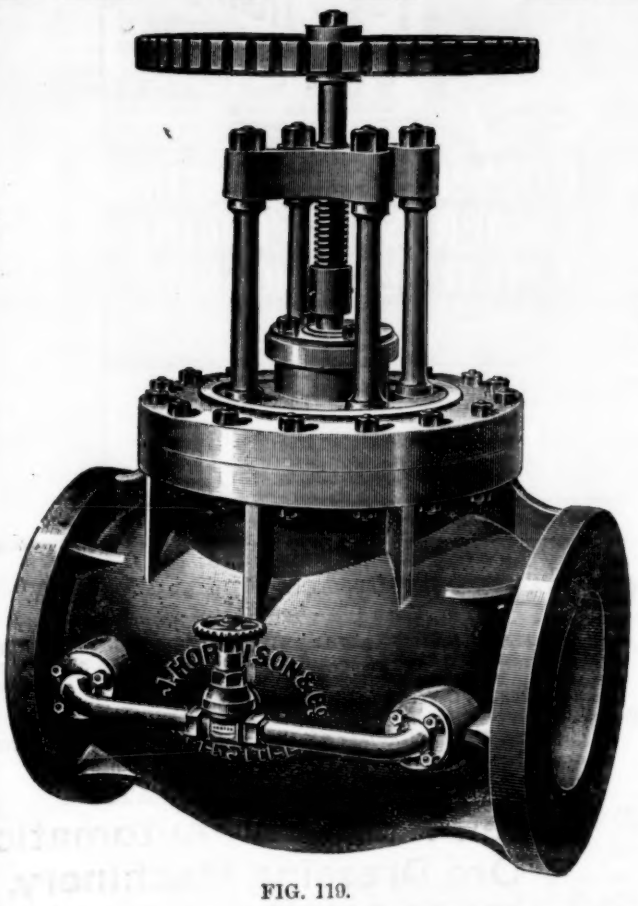

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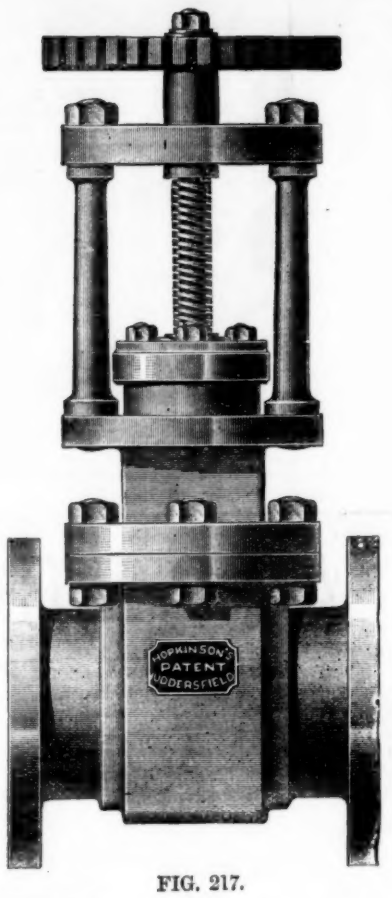

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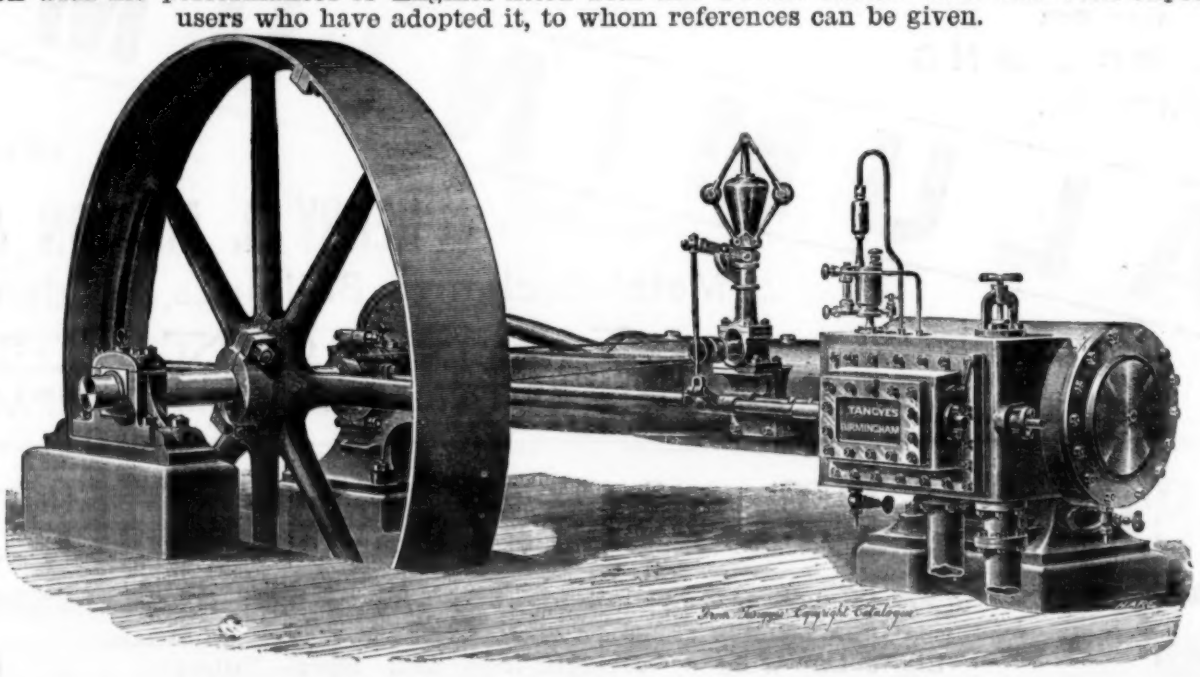

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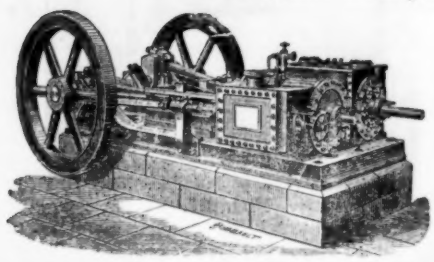

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RICHARD SCHRAM & CO., 17a, Great George Street, Westminster, S.W.
TELEGRAMS: "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

Telegrams—Green, Foundry, Aberystwyth.

SILVER MEDALS AWARDED AT THE ROYAL CORNWALL POLYTECHNIC, 1872 & 1876; GOLD MEDAL AWARDED AT THE GREAT INTERNATIONAL MINING EXHIBITION, CRYSTAL PALACE, 1890.

ONLY AWARDS GIVEN FOR CONCENTRATION PLANTS

GEORGE GREEN'S PATENT
Self-Acting or Automatic Ore Dressing Machinery,
A Special Plant, on a reduced scale, has been erected at the Works by which samples of METALLIC ORES—up to Five Tons may be treated, and the commercial value determined, in this way the most suitable arrangement of Plant is ascertained, a considerable advantage to intending Purchasers of Crushing and Concentrating Plant.

GOLD STAMP AND OTHER MILLS.

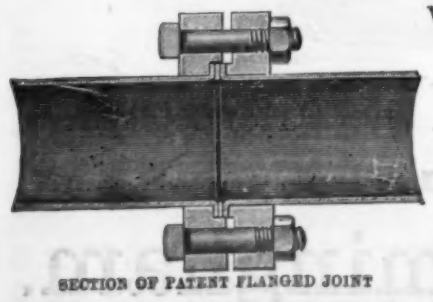
GEORGE GREEN,
THE FOUNDRY, ABERYSTWYTH.

For PURE ALUMINIUM
98 to 99½ per cent. (98 per cent. minimum guaranteed) in
INGOTS, STICKS, & ROLLING SLABS;
ALSO FOR
SHEETS, &c., AND
FERRO-ALUMINIUM.

ALUMINIUM.

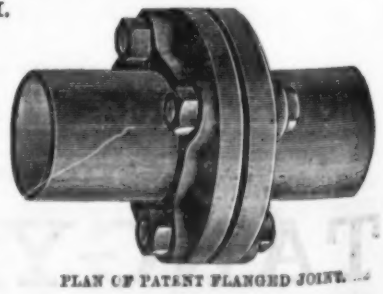
APPLY TO
HENRY R. MERTON & CO.,
2, Metal Exchange Buildings, Leadenhall Avenue.
LONDON, E.C.
AGENTS FOR THE BRITISH ALUMINIUM COMPANY, LIMITED.

A. & J. STEWART and CLYDESDALE, Limited.
Glasgow, Coatbridge, and Mossend.



SECTION OF PATENT FLANGED JOINT

WROUGHT IRON WELDED TUBES and FITTINGS for GAS, WATER, and STEAM.
Light Lap-welded Wrought-iron and Steel Tubes
(SPECIALLY ADAPTED FOR MINES).
With Patent Flanged Joints (as illustrated) for the Conveyance of Water, Steam, and Air, at High and Low Pressures.
LAP-WELDED IRON AND STEEL BOILER TUBES
FOR LOCOMOTIVE, MARINE, AND OTHER MULTITUBULAR BOILERS.
STEEL & IRON PLATES FOR BOILERS, BRIDGES, &c.



PLAN OF PATENT FLANGED JOINT.

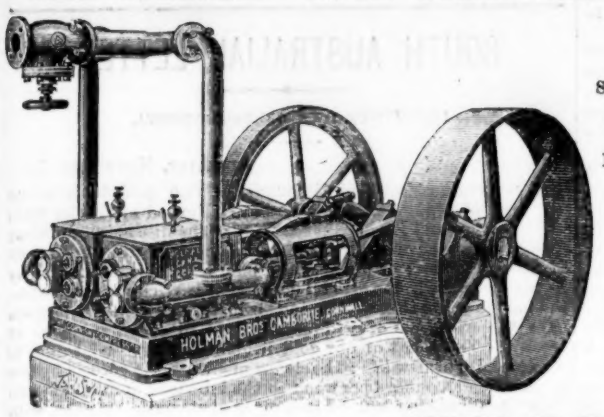
Head Offices: 41, OSWALD STREET, GLASGOW.

HOLMAN Bros., Camborne, Cornwall.

ESTABLISHED 1839.

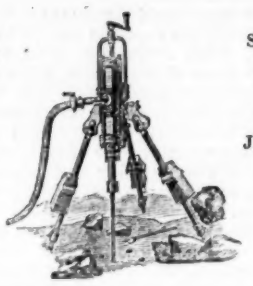
Patentees and Sole Makers of

"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR.



FIRST SILVER MEDAL, Highest Award, Mining Institute Contest, 1881.

Three Makers represented.



FIRST SILVER MEDAL Highest Award, Royal Cornwall Polytechnic Jubilee Exhibition Contest, 1882.

Five Makers represented.

AWARDED SILVER MEDAL INTERNATIONAL INVENTIONS EXHIBITION, 1885.

RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS,** equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES,** and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

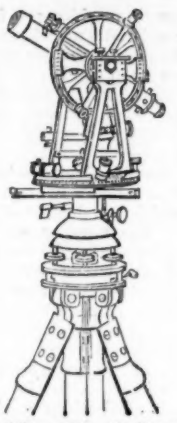
E timates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

London Offices: 7 and 9, LEADENHALL BUILDINGS, E.C.

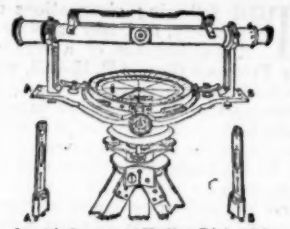
JOHN DAVIS AND SON,

ALL SAINTS WORKS, DERBY;

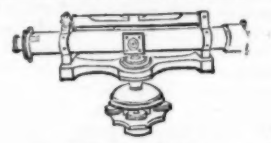
118, NEWGATE STREET, LONDON.



Transit Theodolite with Patent Hoffman Tripod Head, and Trough Compass.



Davis's Improved Hedley Dial, with Telescope and Sights Interchangeable, and Patent Hoffman Tripod Head.



Dumpy Level with Hoffman Patent Tripod Head.

MINING, SURVEYING, AND ENGINEERING INSTRUMENTS.

THEODOLITES. LEVELS. TACHEOMETERS.

Davis's Improved Hedley Miners' Dials, with HOFFMAN PATENT TRIPOD HEAD;

AND ALL DESCRIPTIONS OF MATHEMATICAL AND MINING SURVEYING INSTRUMENTS.

Revised Illustrated Catalogues Free to any Part of the World.

SECTION (A) MATHEMATICAL DEPARTMENT AND SAFETY LAM
SECTION (B) ELECTRICAL DEPARTMENT.

Gold Medal Awarded Mining Exhibition, 1890.

A. B. C. CABLE CODE, 4TH EDITION.

AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

CONCENTRATION.

The Clarkson-Stanfield Concentrator (Limited).

In the CLARKSON-STANFIELD process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS

6, COLONIAL AVENUE, MINORIES, LONDON, E.

The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndoohan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

21543 Thomas Parker and John Pullman, 65, Chancery Lane, London.—An improved process for treating sulphide ores containing zinc and other metals.—December 9.

23556 Edgar Arthur Ashcroft, 53, Chancery Lane, London.—Improvements in the treatment of compounds or ores containing zinc.—December 9.

23605 James Foot, 42, Chatto Road, Clapham Common, London.—An improved longitudinal stay for steam generators, either locomotive, marine, or stationary steam generators.—December 10.

23637 Samuel Sealy Allin, 57, Woodstock Road, Bedford Park, London.—Improvements in the dry concentration of ores and assorting by weight of granular substances.—December 10.

23704 Alfred Julius Boult, 323, High Holborn, London.—An improved method of cleaning the condensing surfaces of steam engine condensers and the like.—December 10.

23719 John Batey, 47, Heytesbury Street, Dublin.—Improvements in steam boilers.—December 11.

23767 Arthur Edward Hogue, 28, Southampton Buildings, Chancery Lane, London.—Improvements in steam boilers.—December 11.

23778 Isaac Fernand Kahn-Viollet and Joseph Gaspard Fox, 4, South Street, Finsbury, London.—Improvements in connection with furnaces.—December 11.

23893 Samuel Hudgson Lloyd, 4, High Street, Bloomsbury, London.—An improved steam generator.—December 13.

23920 Charles Parnacott, 166, Fleet Street, London.—Improvements in the manufacture of metallic alloys.—December 13.

SPECIFICATIONS PUBLISHED.

22995, Abrassart and Lecomte, steam boilers, 1894; 782, engines or motors, 1895; 11882, Reck, steam boilers, 1895; 1240, Kühne, steam engines, 1895; 1586 Baum, steam boilers, 1895; 1716, Dürr, steam generators, 1895; 1807, Gearing, furnaces, 1895; 1907, Bradbury, steam boiler furnaces, 1895; 19568, Brünler, explosion engines, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

BENGAL COAL.—There is an ever increasing demand for Bengal coal including a brisk demand from coast ports, which tended to cause an increase in the downward consignments for the quarter ending June 30, 1895, to the extent of 24 per cent. as compared with those for the corresponding period of last year. The up-country despatches also for the same period show an advance of 7½ per cent. on the year before, so that the coal prospects in the Lower Provinces are certainly satisfactory, although the labour difficulty retards development at a pace commensurate with the needs of the times.

THE JAVA PETROLEUM SPRINGS.—It is stated that petroleum boring in Java continues to give satisfactory results. In the districts around Sourabaya the oil wells yield abundantly, and a brisk local trade in the product has sprung up. In Mid-Java also the industry has been started with success. Pipe lines have been laid from the wells to the tramway, and tank cars are there filled for despatch to Samarang, where oil warehouses are being built.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Australasian Gold Trust (Limited).—Registered December 11 by Burn and Herridge, 11, Old Broad Street, E.C. Capital £50,000, divided into 500,000 shares of £1 each. Objects: To adopt and carry into effect an agreement made December 3 between the London and West Australian Syndicate (Limited) of the one part, and C. H. Heeley, on behalf of the company, of the other part; and generally to raise money by share capital, and to invest the same in any shares, stock, bonds, obligations, debentures, debenture stock, scrip or securities of any company. The number of directors shall not be less than two nor more than nine. The signatories are to appoint the first. Qualification, 500 shares. Remuneration, £1250 per annum, divisible. Registered office, 9, St. Mildred's Court, Poultry, E.C.

Burbank's No. 1 West Gold Mines (Limited).—Registered Dec. 17, 1895, by Vallance, Birkbeck, and Barnard, Lombard House, E.C. Capital £85,000, in £1 shares. Objects: To adopt and carry into effect an agreement expressed to be made between H. Schmidt of the first part, and this company of the other part; to acquire any mines, mining, water, and other rights, grants, leases, claims, concessions, options of purchase, &c., in any part of the world; to develop and work the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches. The number of directors shall not be less than three nor more than seven; the subscribers are to appoint the first. Qualification £100. Remuneration £150 each per annum (£50 extra for the Chairman) and a share in the profits, divisible.

Eagle's Nest (Mount Margaret) Gold Mining Company (Limited).—Registered December 12 by Brighten and Lemon, 103, Fenchurch Street, E.C. Capital £85,000, divided into 85,000 shares of £1 each. Objects: To adopt and carry into effect an agreement expressed to be made between the Murchison Prospecting Syndicate (Limited) of the first part, and this company of the second part; to acquire any gold mines, mining, water and other rights, grants, leases, concessions, options of purchase, auriferous land, &c., to develop and work the same, and to carry on the general business of a mining, smelting, and metallurgical company in all its branches. The first directors, of whom there shall be not less than three nor more than seven, are M. A. Cooke (managing director), E. J. Allcard, C. H. Langmead and E. Tomkins Qualification £250. Remuneration £100 each per annum and a share in the profits divisible.

Excelsior Gold Mines (Limited).—Registered December 10 by Sutton, Ommaney and Rendell, 3 and 4, Great Winchester Street, E.C. Capital £30,000, in £1 shares. Objects: To acquire a certain mineral property situate at or near Yalgoo, in the colony of West Australia, comprising 24 acres or thereabouts, held under gold mining leases granted by the Government of West Australia, the same being numbered 51, 64, and 65, and commonly known as the Excelsior leases; to develop and turn to account the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. The number of directors shall not be less than three nor more than seven; the signatories are to appoint the first. Remuneration £150 each per annum; Chairman, £50 extra, with a percentage of the profits divisible.

Monarch Syndicate (Limited).—Registered December 13 by G. and W. Webb, 10, Austin Friars, E.C. Capital £200,000, in £1 shares. Objects: To acquire the business and undertaking of the Mines Exploitation Syndicate (Limited) upon the terms of a certain agreement; to develop and turn to account the same in such manner as the company shall see fit, and generally to acquire any mines, water and other rights, grants, leases, claims, concessions, options of purchase, &c.; to develop and work the same, and to carry on the business of a mining, milling, smelting and metallurgical company in all or any of its branches. The first directors—of whom there shall not be less than four nor more than seven—are G. Sanderson, J. J. Carr, S. Jennings, C. H. Tindal, A. E. Walton, H. Williams, and H. Wright. Qualification, £500. Remuneration, £2000 per annum and a share in the profits—divisible. Registered office, 8, Drapers' Gardens, E.C.

Rosher and Co. (Limited).—Registered December 16 by Wilkinson, Howlett and Wilkinson, 14, Bedford Street, W.C. Capital £160,000, divided into 160,000 shares of £1 each. Objects: To acquire as going concerns the businesses carried on under the styles of F. Rosher and Co. (Limited), F. Rosher and Co., Sittingbourne, (Limited), J. E. Cook, of Little Heath Brickfield, Oxshott, Surrey, Sandford Pottery Company, the Kent Co-operative Brickmaking Society (Limited), Midland Sanitary Pipe Company (Limited), F. Jewson, of the New Brickfields, Haddenham, Cambs, B. P. Harris, of Stone Court Cement Works, Greenhithe, Kent; and the Cumbrian Clay Company, near Mold, Flintshire, in accordance with a certain agreement expressed to be made between W. S. Oliver of the one part, and this company of the other part; and to develop and turn to account the said businesses in such manner as the company shall see fit. The first directors—of whom there shall not be less than five nor more than nine—are A. Love, D. T. Powell, J. H. Shaw, F. H. Rosher, and F. E. Rosher. Qualification, £500. Remuneration, £200 each per annum and £100 extra for the Chairman.

"Uniquia," the Universal Sports and Recreation Society (Limited).—Registered December 13 by H. E. Barnes, 213, Piccadilly, W. Capital £100,000, in £1 shares. Objects: To adopt and carry into effect an agreement between W. Andrews and R. Cook of the one part, and this company of the other part, for acquisition of the undertaking of the National Athletic Club Grounds, Kensal Rise, London, and to prepare, arrange, open, manage, and carry on exhibitions of sports, arts, manufactures, inventions, resources, products, &c. The number of the members of the committee is not to be less than three nor more than nine. The subscribers are to appoint the first. Qualification 200 shares. Remuneration £200 each per annum, and £100 extra for the Chairman.

Victory Gold Mining Company (Limited).—Registered December 17 by Chave and Chave, Broad Street Avenue, E.C. Capital £200,000, in 5s. shares. Objects: To acquire the business, property, assets, liabilities, &c, of the Victoria and Altamira (Limited), to develop and turn to account the same in such manner as the company shall deem expedient; to acquire any other mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, &c., in Venezuela, or to develop elsewhere and work the same; and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches. The directors shall not be less than two nor more than five; the subscribers are to appoint the first. Qualification, 500 shares. Remuneration, £200 each per annum (£50 extra for the Chairman) and a share in the profits, divisible. Registered office, Broad Street Avenue, E.C.

Rhodesian and General Corporation (Limited).—Registered December 14 by E. Salaman, Fort, and Co., 10, Union Court, Old Broad Street, E.C. Capital £250,000, in 250,000 shares of £1 each. Objects: To acquire, as a going concern, the business, goodwill, assets and liabilities of the Joint Stock Companies Agency, incorporated in 1893, and to establish, form, subsidise and promote companies, associations, syndicates and partnerships for the prosecution and execution of undertakings, businesses, works, &c, in Africa or elsewhere. The first directors are Sir G. W. R. Campbell, K.C.M.G., J. Eustace, and A. J. Macphail. Qualification £1000. Remuneration £100 each per annum (£50 extra for the Chairman), and a share in the profits, divisible. Registered office, 10, St. Helen's Place, E.C.

British Electrosone Corporation (Limited).—Registered December 10 by Catterns, Jehu, and Co., 33, Mark Lane, E.C. Capital £250,000, in shares of £5 each. Objects: To adopt and carry into effect an agreement made December 9 between John A. Barham and W. Digby, of the first part, and F. W. Manley, on behalf of this company, of the other part; to acquire any letters patent, patent rights, concessions, protective trade marks, designs, and copyrights in connection with Woolf's electrolysing, bleaching and disinfecting process in the United Kingdom, and in any colony and dependency of the United Kingdom, and in any foreign country other than the United States of America and the Hawaiian Islands; and generally to carry on business as manufacturers, merchants, contractors, and engineers, &c., &c. The first directors—of whom there shall be not less than five nor more than nine—are to be elected by the signatories. Qualification, 100 shares. Remuneration to be fixed by the company.

THE ALGERIAN PHOSPHATE CONCESSIONS. — M. Gérome Bertagna, Mayor of Bône, has been suspended from office as the result of a judicial inquiry into his connection with the granting of the Algerian phosphates concessions. The *Matin* warns members of the Chamber to prevent the adoption of M. Mastier's report relative to the indemnities which may be claimed by the evicted holders of the Algerian phosphate concessions. The journal says the deputies must take care that the English do not utilise their votes to make excessive demands.

ONYX MARBLES.*

By Professor Courtenay de Kalb, School of Mines of the University of Missouri, Rolla, Mo.

THE following observations upon onyx marbles are fragmentary, and may shortly be rendered superfluous by the appearance of a work upon these interesting stones by Professor George P. Merrill, which is now in the Press. The notes in this paper are the result partly of individual investigation, partly of information furnished by engineers and others who have studied the onyx marble deposits, and partly of research in the scanty literature upon the subject.

In the beginning a sharp distinction must be drawn between the precious onyx, which is a cryptocrystalline variety of quartz, and the ordinary commercial "onyx," which is a deposit of carbonate of lime from aqueous solution. The true or precious onyx is distinguished arbitrarily from the agates by the perfect parallelism of the colour bands, these bands consisting usually of alternations of white and black, white and brown, and white and red. It may be mentioned, in passing, that such perfect banding is so exceedingly rare that few, if any, of the onyxes or cameos sold in our jewellery shops are from naturally coloured stones, the artificial colouring of agates being a regular industry in Germany. The method is said to consist in saturating the more porous layers of the banded white or bluish slate-coloured agate with honey, and then carbonising this with sulphuric acid, to produce the black and white variety. The red and white is produced by soaking in ferric chloride and oxidising with ammonia. Such a red colouration should consequently be obtained in any porous stone by similar treatment; but my personal experiments in this direction have been unsuccessful, or, at best, have resulted in a dirty ferric-oxide stain.

The term onyx marble, as applied to calcareous deposits, must be still further limited since many varieties exist. The general name of travertine will include all such deposits except the finely-crystallised minerals, calcite and arragonite. The oolites should also be excluded from this classification, although in their manner of formation these more nearly approach the true travertines. The familiar calcitic formations in caves (stalactites, stalagmites, "cave onyxes") may quite properly be classed among the travertines. That which entitles any of these to be called an onyx marble is the accidental circumstance of texture and beauty, fitting it to serve as an ornamental stone in decoration. It is, therefore, a commercial, and not a scientific distinction.

The requisite qualities for a commercial onyx marble are:—First, perfect or nearly perfect homogeneity of texture; second, absence of subcrystalline structure, so that no tendency to crystallisation may be observable by the eye; third, freedom from porosity and cracks (although slight porosity may be corrected by "filling" and cracks, if not so deep and extensive as to weaken the stone, may often be highly coloured and produce an acceptable artistic effect); fourth, translucency, the *sine qua non* of a high-grade onyx marble, giving a deceptive appearance of "depth;" fifth, beauty of colouring—a matter of taste and fashion, for the most part, although the translucent white, delicate mignonette green, and fine translucent white, with dashes or veinlets of pink, are almost always in demand and bring the highest prices; and sixth, proper size of perfect blocks, the lowest limit of thickness being 1 inch, although slabs three-fourths of an inch thick are sometimes used, with a "backing" of other material, while for superficial area the line is drawn at 1 foot square, although here, again, smaller sizes, if very fine in colour and texture, may be marketed.

The translucent white onyx marbles are very often confounded with and sold under the name of alabaster, the true alabaster being a translucent variety of gypsum, and far less durable, owing to its greater softness, than onyx marble. Again, we find in commerce a stone called "agate onyx," which is a variety of onyx marble containing more or less foreign matter, chiefly alumina, and sometimes silica, approaching the agates in appearance, but generally inclining, in part or in whole, towards opacity. While being highly ornamental, particularly in connection with dark wood interior finishing, its application is more limited than that of the finer, translucent varieties.

Before leaving the commercial side of this matter, a few additional details may prove of some importance. The highest prices are obtained by a combination of desirable physical characters with large size of blocks or slabs. The poorer grades bring sometimes as little as 50 cents per cubic foot; onyx marble, in the rough at least, being invariably sold by this unit of size, whether in blocks or sawed into slabs. From this minimum prices range upwards to $50 a cubic foot; and extremely fine blocks, suitable for columns, may command fancy figures, limited only by the size of the purchaser's purse, and the vending genius of the dealer. It may be said, however, that the average size of good slabs is only 12 by 14 inches, and that slabs 18 by 36 inches, and 2 by 4 feet in size, are not uncommon. The famous Mexican variety known as Pedrara, very little, if any, of which is now in the market, is quoted on an average at about $10 per cubic foot. The "New Pedrara," running chiefly into the pink shades, brings about the same price. Fine translucent Arizona stone sells at about $8; California blue and yellow at $6; other varieties according to their fineness. In one large representative shipment from Vera Cruz, taken as an example, the blocks ranged from 36 by 16 by 13 inches to 53 by 33 by 24 inches, and were billed at $4 per cubic foot f.o.b. at Vera Cruz.

The cost of sawing and polishing varies from 65 cents to 80 cents per square foot, according as the polishing is done by the machine or hand process. The sawing differs in no wise from that employed with other stones. The machine process is as follows:—After being sawed the slabs are placed on a "rubbing-bed," which consists of a circular cast-iron plate, from 8 feet to 15 feet in diameter; the older forms having a circular opening from 1 foot to 18 inches in diameter in the centre. The plate is planed to a smooth surface, and is mounted upon running gear so that it may revolve in a horizontal plane. Fixed arms, usually four in number, are sustained radially about one-fourth of an inch above the plate, either by an upright passing through the central opening, or by a framework overhead (in the case of the newer solid forms of bed). The slabs of stone to be polished are placed upon the bed in front of the arms, and the bed is revolved slowly beneath them in such a direction as to hold them firmly against the arms. An abrading material, such as sand, sometimes mixed with "chilled shot" or crushed steel, with a constant supply of water, is fed upon the plate. If necessary the stones are weighted to increase the friction. From this rubbing bed the slabs are removed to the emery bed, which is similar to the former, fine emery being used for abrasion. They are then rubbed down by hand with a fine, evenly-grained sandstone, commonly called a "Scotch hone," with a sufficient supply of water, and smoothed off with pumice stone and water. The final polish is put on by rubbing the slabs upon a buffing bed, similar in form to the rubbing bed, but covered with a thick, specially-prepared felt, upon which a small amount of "putty powder" (oxide of tin) is fed to give a high gloss. The hand process consists in grinding on the rubbing bed as before, and then rubbing down by hand successively with Nova Scotia "blue stone," "red stone," "Scotch hone," and pumice stone, after which it is glossed with "putty powder" or, in the case of cheaper "onyxes" and common marbles, with a mixture of two parts of oxalic acid and one part of oxide. This latter finish produces a sort of "skin coat," which, upon fracture, looks as if the stone had been varnished. The edges of onyx marble table tops, mantels, &c., are treated in this manner, even when the surface has been polished on machines. The use of common emery with white stone is objectionable, owing to its tendency to discolour them.

The amount of onyx marble produced in the United States at present is very small, the reported output for 1895 having been 2175 cubic feet, which dropped in 1894 to 1450 cubic feet, averaging, at the place of production, $20 a cubic foot, showing that only the finest grades were marketed. The principal localities in this country where important deposits exist are California, Arizona, and Utah. In California the principal locality is in San Luis Obispo County, near Musick, in the Santa Lucia mountains. Here the inclosing rock is sandstone, the onyx marble occurring in nearly vertical ledges 16 inches wide. The colours are white, with veins and "clouds" of red and smoky black or blue. Blocks 10 feet square are said to be available. In Solano County deposits occur near Suisun, Vacaville, and elsewhere. In San Bernardino County occurs a light-brown variety, and an emerald-green shade is reported from Siskiyou County, along with others from Soda Springs and Yreka. A ledge 12 feet thick is found 25 miles from Santa Ana, in Los Angeles County, and more or less is known to exist in Kern, Placer, and Tehama Counties. Almost without exception, in California, a close connection can be traced between the onyx marble deposits and hot springs, or other mineral deposits known to have resulted from such waters. In Siskiyou County they occur along with hot springs which are depositing both onyx marble and porous travertine. Eruptive rocks also abound in their vicinity. At the Suisun marble quarries is a breccia of shale, sandstone, and volcanic ash, cemented by lime, and traversed by veins and bunches of arragonite (?).

In Arizona quite similar conditions obtain. The chief deposit is on Big Bug Creek, in Yavapai County, 25 miles south-east of Prescott. It is a surface formation, occupying a series of rounded knolls several hundred acres in extent, and is found in layers varying from a fraction of an inch to several inches in thickness, interbedded with a coarse breccia of schistose granitic, syenitic, and dioritic fragments, cemented together by a sandy calcareous matrix. The country rock is also schistose, granitic, and dioritic. The onyx marble deposits themselves consist of irregular concentric layers, thinning out unevenly, with compact layers frequently separated by porous ones. The colours are variable. Some of the finest reseda green onyx marble in the world comes from these quarries. Their beauty is enhanced often by a peculiar wavy effect of alternating light and dark shades of green, but such colours are rarely uniform throughout large blocks. Amber, ochre-yellow, and white masses are found; but the characteristic of these Arizona specimens, which is sure to appear in a slab of any considerable size, is a brilliant ochreous red, running into a perfectly opaque chocolate brown, constituting the variety known as "agate onyx." The more highly-coloured specimens often yield as much as 5 per cent. of ferric carbonate. This changes to the hydrated sequioxide, producing the brown shades, and destroying the compact structure of the stone.

At Cave Creek, Arizona, is another deposit of like character as to formation and colours. One ledge is 10 feet thick, but has been shattered by earth-movements. This is on the slope of a low hill, capped with basalt. The country rock consists of schists, with dykes of acid eruptive. Throughout this region are large areas of lava *mesa*, underlain by volcanic tufa. These yield the calcareous waters, which also contain more or less sodium sulphate. It is also worthy of note that in the Eureka mining district of Arizona there are other deposits of travertine below similar beds of tufa and lava.

Utah is becoming a producer of onyx marble, with prospects of increasing in importance. The Salt Lake City Onyx Company is operating dressing works in Salt Lake City, obtaining its stone from quarries to the west of Utah lake. Directly above and in contact with the onyx marble is a blue limestone. The deposit rests upon clay, sand, and limestone. There are many evidences of earth movements, and the range in which the deposit occurs abounds in metalliferous veins. Six miles distant there is a hot spring issuing upon the surface at a temperature of 105° F. The predominating colour of this onyx marble is orange, but green, pink, lemon, and other shades are procured. Slabs measuring 10 feet 6 inches by 5 feet 8 inches have been taken from these quarries and finished up. Sizes from 12 by 18 inches to 12 by 36 inches can be obtained in considerable quantities.

Deposits are also reported from the vicinity of Fillmore, Millard County, ranging in colour through lemon, orange, mahogany, and black. The onyx marble occurs mostly associated with limestones and quartzites along a belt of warm springs, running through Millard, Beaver, and Iron Counties. These springs occupy mainly a line of contact with eruptive rocks.

A fibrous, concretionary variety of onyx marble occurs near Rio Puerco in Valencia County, New Mexico; and a similar deposit is reported from El Paso, Texas. This description would seem to place them among the "cave onyxes," concerning which much is heard in nearly all of the great limestone-bearing States in the Union. These are merely stalactite and stalagmites, and in some cases masses of compact travertine, forming incrustations upon the walls and floors of caves. The only one of these deposits now known to be in process of exploitation is that owned by the Eureka Onyx Company, of Eureka Springs, Arkansas, situated in the north-east part of Carroll County, near the Missouri line. The company is operating works in Eureka Springs, producing mostly small slabs, although mantel facings 12 by 24 inches in size, are also worked out. These sell when finished at from $1 to $2·50 per square foot. The colours are chiefly white, with occasional tinges of red and pale green, rarely translucent, and often displaying the radiated fibrous structure so common in stalactites and stalagmites. Missouri has also produced small amounts from caves in Crawford and Pulaski Counties. Sound blocks of large size, however, are infrequent, and efforts to work these deposits have proved unsuccessful. The colours are white and brown, varying from opaque to sub-translucent. Virginia has also yielded a small amount of this variety of onyx marble, coming from the quarries of the Virginia Onyx Company, in Rockingham County. This locality, from the insufficient accounts obtainable, would appear to offer peculiarities worthy of further investigation. There is reported to be one considerable mass of compact travertine, covered with débris, in which occur a large number of detached masses of the same material, one of which is of important dimensions, standing nearly vertically. Whether or not this is the result of a collapsed cave remains undetermined. In Missouri some of the largest masses of cave onyx are found thus in the débris of ancient caves which have fallen in. Some of these caves had been of enormous extent, so that deep ravines and very considerable valleys occupy the lines of the ruined caverns. Stalagmitic bosses may be found high up on the hillsides along these ravines, and the "float" abounds in weathered fragments of stalactites, stalagmites, and calcareous incrustations. In the process of weathering, the banded structure of the incrustations become very prominent; the more opaque layers projecting boldly, while the clearer layers are worn away, and acquire a chalky appearance in the body of the mass. The Arizona onyx marble weathers similarly, forming a finely striated surface, with the opaque red and brown layers protruding.

(*To be Continued.*)

* Read before a recent meeting of the American Institute of Mining Engineers.

SOUTH AUSTRALIAN LETTER.

(FROM OUR OWN CORRESPONDENT).

ADELAIDE, NOVEMBER 19.

IT is a curious fact that discoveries of rich gold fields in one part of Australia have often been followed by similar finds in other and far distant localities. The discoveries in West Australia may have had some influence in stimulating the search in other colonies; or possibly the efforts in this direction may be partly owing to the general depression. Whatever the cause, the fact remains that seldom in the history of South Australia have the prospects of gold mining been so encouraging as at present. The oldest of our gold fields—Echunga—continues to give promise of new life; the claims mentioned in former letters as yielding 20 ounces per week to the labour of a man and two boys are now being worked in a more systematic manner, with the view of proving in greater depth the value of the auriferous lode. Neighbouring ground is being opened with encouraging prospects, and anticipations for the future run high.

On the Barossa gold field also new developments are taking place, and the work of prospecting is progressing satisfactorily. It is in the highest degree probable that new and important discoveries will be made here, as already two or three of a very promising character are announced.

The most recent development of importance has just been reported from Blumberg. It will be remembered that in a former letter a few months ago it was mentioned that the veteran gold miner, Mr. Pat. Hynes, had opened a rich spot on his private land, and three or four of his men were getting out 16 to 20 ounces per week. A few days ago, as the result of a search, a fine reef or lode was struck, rich in gold, a number of beautiful specimens having been broken out. It is worthy of note that Mr. Hynes has acquired considerable property in the district, the gold discoveries having helped him largely in purchasing land. The three gold fields above mentioned are all within 30 miles of Adelaide, and the extreme distance of the farthest north (Barossa) from the farthest south (Echunga) is only about 50 miles. But 380 miles north I lately visited a promising looking "diggings," where a fair amount of alluvial gold has been washed out. A few—the Angipena gold reefs—are in course of development, but nothing of special importance has lately been heard from them.

Having been requested to report on a gold mine in the neighbourhood of Wadnaminga, about 250 miles N.N.E. from Adelaide, and 18 miles south of the Broken Hill railway line, I proceeded to the spot 10 days ago. To my surprise the mine proved to be the site of the original discovery at this place made six or seven years ago. At that time some very fine quartz carrying heavy gold was found close to the surface; claims were taken up and the reef sunk on, but at the depth of 40 feet the stone was not so rich as near the surface, and after a few months' work the discoverers abandoned it. The mine was taken up subsequently by another party who did a good deal more work and raised some good stone, but for some reason or other, probably owing to want of capital, they also gave it up. Over two years ago two working miners, assisted by a professional gentleman, went to work, and have gradually developed a very payable lode. I examined the workings, and found a defined lode had been proved on the underlay to the depth in one shaft of 140 feet; in another, about 40 yards to the west, to the depth of 60 feet; and in a third, about 40 yards to the east of the centre shaft, to the depth of about 80 feet on the underlay. The lode averages fully 2 feet 6 inches wide, and is composed of veins of quartz from 6 inches to 18 inches thick, enclosed in a loose mullocky formation, between walls of slate. The whole of the lode stuff is gold bearing, and pans of the mullock washed in my presence showed fine gold in very payable quantity. The quartz in places is very rich, and I picked out from the solid lode, at the depth of about 50 feet in the eastern shaft, specimens as good as those shown from Coolgardie. The men had about 4 cwts. of rich specimens which they had saved in the course of working, some solid blocks of stone of 40 or 50 lbs. weight. This mine is about 10 miles to the west of Taltabooka, and three from the Milo and Virginia Mines. A shaft has been sunk for water on the claim, and a fair supply has been struck. A moderate amount of capital should make this a dividend-paying concern. If the specimens I saw taken out from this mine had come from one in West Australia, £50,000 would be the lowest price put upon it, but here—well, probably, £10,000 would be thought enough. We have not heard much about Nillinghoo lately, but the fact is, they are preparing to erect machinery on the Treasure Mine, from which grand results are expected. I hear that a big plant for working Haycraft's process is being got ready to send to West Australia. This is the outcome of the report of a qualified expert who was allowed to investigate the operations at Haycraft's Works during about three weeks, and on his report a company, with £10,000 capital, is preparing the plant for the West.

WESTERN AUSTRALIA'S OUTPUT FOR OCTOBER.

Field.	Quantity. Ozs.	dwts.	grs.		Value. £	s.	d.
Coolgardie ..	13,813	4	20	..	52,490	6	4
Yilgarn	2,521	6	8	..	9,581	0	1
Ashburton ..	66	10	0	..	252	14	0
Kimberley ..	69	0	0	..	262	4	0
Pilbarra	271	0	0	..	1,029	16	0
Murchison ..	10,984	12	2	..	41,741	9	11
	27,725	13	6	..	£105,357	10	4

COAL DUST FOR GAS PRODUCTION.—A new method to manufacture illuminating gas from coal dust consits in allowing the coal to enter in a continuous stream a retort heated at the outside by means of a feeding arrangement in the top of the retort. The material scattering into a cloud of fine dust passes the hot part of the retort, where it is degased momentarily, leaving the solid residue, coke, behind. The latter is frilled together by the heat of a coherent mass and falls to the bottom of the retort, while the gases are carried away by a pipe for further operations.—*Canadian Colliery Guardian and Critic.*

VICTORIAN GOLD MINING.

By THOMAS CORNISH, M.A.I.M.E., Author of "Our Gold Supply," &c.

THE Clunes gold field is among the much-neglected ones in Victoria at the present time. A few years since I was invited to join the London board of the Port Phillip Company. Knowing the field so well, its past history, and believing it had a prosperous future before it if properly worked, I consented, and have since endeavoured to infuse new life in its management. Prior to my joining the board the company had, under the superintendence of the late Mr. R. H. Bland and Mr. Thomas Hewitson, been sinking the main shaft to search for deeper formations of the lodes so profitably worked in former years at higher levels. Finding that the capital at command was too limited to carry on the deepening of the main shaft to (say) 2000 feet or more with the necessary developments, at the same time I recommended the shareholders to endeavour to effect an amalgamation with the neighbouring mines north and south, and work the united properties jointly, so that the drainage question would have been satisfactorily settled by the united action of the amalgamated companies.

My recommendations were approved of, and I was commissioned to proceed to Clunes in October, 1893, to arrange for a scheme of amalgamation of the several properties on this well-known gold field, including the Port Phillip, New North Clunes, and South Clunes Companies, the whole forming one of the best and greatest combinations of well-proved gold mines in Australia. After long and intricate negotiations with the several parties interested, I succeeded in effecting arrangements for the amalgamation of the properties on a fair basis.

Returning to London in June last year, I laid the results of my negotiations before my co-directors and shareholders for approval, which was duly accorded, and at once took steps to carry the amalgamation into effect by increasing the capital. The efforts made were not responded to sufficiently by the shareholders, and because of their apathy or inaction the Port Phillip Company has had to be reconstructed. The clamour of prospects from other gold fields for the time overshadowed the sober but solid prospects of a splendid group of mines which had a record of production of nearly five millions sterling (£5,000,000). Such organisations as I had so carefully arranged can seldom be got together in any part of the world, but the utter indifference displayed by the shareholders spoilt the opportunity of carrying through successfully a combination of gold properties that could have been worked with large profits for generations to come.

The prospectus, as issued to shareholders, set forth in full the terms of amalgamation with a moderate capital of £175,000, of which the new capital to be raised was to have been £50,000, in 10 per cent. cumulative preference shares, the companies owning the mines taking ordinary shares for payment as arranged, believing in the future results for their profits.

This combination of good mines, with large plants of machinery at various shafts, three large batteries of stamps for milling (187 heads), capable of crushing 2000 tons of ore weekly, 10 shafts sunk on the two miles in length of the line of lodes averaging about 1000 feet per shaft, with all the accessories necessary for mining on a large scale, were ignored by the bulk of Port Phillip shareholders in favour of shadowy prospects, such as have lately appeared, with a flash of temporary light that dazzled the public for a time.

A primary object of mine for years past has been to inaugurate a better and safer system of gold mining, by which the investor may have a greater certainty of solid and permanent results for his capital. The wild rush and gamble for high-priced and oftentimes much over-valued shares in companies lead to disappointment and loss, while investment in legitimate undertakings that have really good records in the past and prospects in the future cannot go far wrong, and that would, in most cases, be highly satisfactory, are often ignored. Such was the case with the Clunes Mine. In the reconstruction of the Port Phillip Company that has lately taken place I can but regret that the action of the liquidator and the underwriter should have excluded myself and other large shareholders from the new board. If they think that such an action can be of advantage to the future prospects of the company, I think they are mistaken. The development of the Port Phillip Mine can best be done by those who have practical experience of gold mining generally, and an intimate knowledge of the resources of this mine in particular. The two gentlemen who have been appointed directors, or were appointed by the signatories, may be good business men, but I fail to perceive where their knowledge of gold mining or of the Port Phillip Mine can have been obtained except from the information gained by the perusal of the reports of myself and others. Now, while my reports of the mines at Clunes have been full, and, I believe, fairly instructive to a careful reader, yet there are many things to be considered in carrying out my recommendations that cannot well be grasped by amateurs.

BRITISH GUIANA'S GOLD INDUSTRY.

THE gold entered on November 28 at the Custom House, Georgetown, for shipment per the R.M.S. *Solent*, which sailed that afternoon, amounted to 4329 ounces, to the value of $75,420, as compared with 4794 ounces 7 dwts. 16 grains, to the value of $85,068. The total output for the year up to the 28th inst. amounts to 108,449 ounces 4 dwts. 12 grains, to the value of $1,923,799·9. The following are the shippers and the amounts of their shipments:—

	Ozs.	dwts.	grs.	Total value.
The Colonial Bank... ...	1135	8	8	
The B.G. Bank	3103	11	16	
Total...	4239	0	0	... $75,420

The following is the return of gold entered at the office of the Department of Mines for the week ending November 30, 1895, and the total for the month:—

	November 30. Ozs. dwts. grs.		November. Ozs. dwts. grs.	
Barama	63	10 12	190	0 15
Barima	765	13 15	2156	17 23
Cuyuni	535	2 10	1823	18 21
Essequebo	—		2352	15 2
Groete Creek	12	1 23	54	7 2
Mazaruni	—		1	13 6
Potaro	334	1 8	2136	14 14
Puruni	53	8 5	539	2 14
Total	2341	2 13	9255	10 1

	Ozs. dwts. grs.
October total	10078 11 9
September total	9230 11 14

Export of gold from January 1 to December 9:—

	Ozs.	dwts.	grs.		
1895	108,449	4	12	at	$1,923,979·9
1894	114,714	18	10	at	$2,044,687·88

We acknowledge, with thanks, the receipt of Messrs. Mathieson's monthly Mining Handbook for Mid-December, 1895.

REVIEW.

The Colliery Manager's Handbook. By Caleb Pamely. Third edition. (London: Crosby Lockwood and Son. 1896.)

We do not know why the literature of coal mining should so very far exceed that of metal mining, even out of all proportion to the respective magnitude of the two industries, but such is the case, and, accordingly, every work dedicated to the former has to be prepared to face fiercer competition and more stringent criticism. The author of the work now before us claims in his title page to have produced "a comprehensive treatise on the laying out and working of collieries, designed as a book of reference for colliery managers, and for the use of students preparing for first-class certificates," whilst in his original preface he declares his aim to be "to prepare a work more complete in itself than any of its predecessors." It is thus evident that his pretensions are considerable, and his aims of the highest—always a recommendation in itself; whilst in this particular instance we are quite willing to concede that he has, if not fully attained his aim, at any rate fallen very little short of it. We have a thorough, honest dislike to books that are produced with the avowed object of helping students to pass examinations—teaching them to parade a minimum of hastily obtained and ill-digested knowledge, so as to delude the examiners, if they can, into the belief that it is laboriously acquired and well assimilated information. The present work is not, indeed, of that type, although, to our mind, the questions and answers worked out for the benefit of students, with which the volume is interspersed, constitute a blemish rather than a recommendation. At the same time we must not be understood to suggest that this is a "crammer's" book. It is nothing of the kind. It is a thoroughly sound, practical work, written by a man who knows from actual experience what he is writing about, and as such is thoroughly to be recommended to practical men. As we have said, we do not like the examination questions and answers; we also think that a good deal of matter herein included might have been left to the text-books on physics, mechanics, &c., where it more properly belongs. The chapters on steam boilers and on oil engines might well have been omitted, whilst the method of graduating a thermometer and similar details are surely out of place in a work on mining. We think, indeed, that the volume might have been reduced by at least a quarter, without in any way detracting from its utility, but rather the reverse. In these days of ultra-specialising, it is more than ever necessary for "the cobbler to stick to his last." True it is that the mining engineer needs information on the above and many other subjects, but he ought to be taught to seek it in books devoted to these particular branches; he also must be able to read and write, but that would be no reason for making a work on mining include a spelling primer.

Having said so much, we are pleased to be able to add that the quality of the book is very high indeed, many of the more practical chapters being excellent. Those on mineral leases, on methods of working, and on surveying, strike us as being a long way above the general average of books of this class. The chapter on safety lamps is full and comprehensive, and thoroughly up to date, some of the most recent patterns being described, and their respective good and bad qualities pointed out with much discrimination. We have noticed few mistakes or omissions of any importance; we must, however, take very strong exception to the very curious distinction which the author chooses to draw between a vein and a lode, seeing that the two words bear identically the same meaning. Again, in the chapter on haulage, the author has written "power" where he obviously means "work" (p.347), the result being not a little puzzling at first sight. Chief amongst the omissions we might note that there is no mention in the chapter on shaft sinking of the Triger system, which has been so successfully employed in Belgium and elsewhere; we are also surprised that the author has not considered the subject of electric underground haulage worthy of his attention; we, for our part, venture to think that it is one that no coal mining engineer of the present day can safely venture to disregard. Indeed, it is difficult to see where the applications of electricity to the purposes of the miner are going to stop, and writers of mining handbooks should look well ahead in such matters.

We may add that the book is well got up, and that the numerous illustrations are of more than average merit. Figure 6 on page 12 seems, however, to have gone wrong, and we may call the author's attention to the section of the diamond drill on page 19, where the top of the settling tube is shown closed instead of open, as it, of course, should be.

We have called attention to the above little imperfections, not as specimens of the work, but because they stand out in marked contrast to the general high quality of the book, and in the expectation that the author will see his way to remedy them in the future editions that will no doubt be called for.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices Liskeard, Cornwall, writes (December 26) as follows:—The mining market is apparently idle, and will probably remain so until after the Christmas vacation. Prices generally are nominal. Tin shows a further decline. Quotations:—Carn Brea, ¼ to ½; Devon Consols, 1 to 1½; Dolcoath, 16s. to 17s.; ditto (partly paid), 4s. 6d. to 5s.; Drake Walls, 2s. to 2s. 6d.; East Pool, 3¼ to 3½; Killifreth, 4s. 6d. to 5s.; Levant, 3¼ to 3½; Polberro, 14s. to 15s. c.p.; South Crofty, ¼ to ½; South Frances, ⅜ to ½; Tincroft, 2¾ to 3; West Frances, ½ to ⅝; West Kitty, 3¼ to 3½; Wheal Basset, 3¼ to 3½; Wheal Grenville, 10¼ to 10½; Wheal Kitty, 2s. 6d to 3s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of December 23:—A dull market, and absolutely nothing doing. It is to be hoped that the coming year will be a better one for Cornish mining than the past. Quotations herewith:—Blue Hills, 1s. to 3s.; Carn Brea, ¼ to ½; Dolcoath (fully-paid), 17s. to 18s.; ditto (5s. paid), 4s. 6d. to 5s.6d.; East Pool, 3¼ to 4; Killifreth, 4s. 6d. to 5s. 6d.; Polberro, ⅜ to ⅝; South Crofty, ¼ to ½; South Frances, ¼ to ½; Tincroft, 2¾ to 3¼; West Frances, ¼ to ½; West Kitty, 3¼ to 4; Wheal Basset, 3 to 3½; Wheal Grenville, 10 to 10½; Wheal Kitty, ¼ to ½; Wheal Metal (3s. paid), 3s. 6d. to 4s. Tin, 61½.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, December 24 (noon):—Not for many long years has the "sensation" spoken of last Thursday been so startling. When we wrote last week we were just about the middle of its effect, Friday proving further distinctly disastrous to the holders or "bulls." Up to Saturday morning, when prices opened at the lowest of the week, declines had been persistent, and as regards American rails, abnormal even for them (the home of surprises). Saturday, however, brought in buying orders, and from the opening on Saturday, with some (comparatively) slight set-backs, figures have improved herein. It is hardly worth while enumerating declines when they are so general, but, notwithstanding a very decent rally from lowest points Milwaukees are $8⅛, and Louisvilles $6 down on balance, after both had been a lot lower still. In presence of these declines of between $2 and $3 seems insignificant, but there are some of these and lots somewhere near. All we may say have shown decided percentage rise from the bottom. Whilst the American market has dominated attention, other departments have felt sympathetic influence. Home rails are all lower, but very slightly as compared with the market most closely allied to the creation of the mischief. Still declines of between 1 and 2 are numerous, and these would be noteworthy in the absence of the special conditions surrounding or overshadowing the American market. Dealings in miscellaneous markets have been fairly numerous, but prices with very few exceptions are on the downward side, as will be seen from details as follows:—

CONSOLS.—Lower: Two and Three-Quarter per Cent., 11-16.

COLONIAL STOCKS, &c. — Lower: Canada Registered, 2 to 3; New South Wales Inscribed, 1 to 1½; New Zealand Inscribed, ½ to 1½; Victoria Inscribed, 1 to 2.

CORPORATION STOCKS AND DEBENTURES.—Higher: Manchester Four per Cent., ½ to 1.

FOREIGNERS. — Lower: Argentine Six per Cent., 3¼ to 3⅜; ditto Five per Cent., 2; Brazilian Four and-a-Half per Cent., 3; Brazilian Four per Cent., 5½; Egyptian Unified, 2½; Italian Rentes, ¼ to ⅜; Mexican Six per Cent., 3; Portuguese Three per Cent., ½; Spanish, ⅜; Turkish D, 1½; Uruguay Three and-a-Half per Cent., 1½.

BANKS.—Higher: Consolidated, 1-16.—Lower: Bank of Liverpool, ½; Imperial Ottoman, 1; Manchester and County, ½; District, ⅜; W. D. and Manchester and Salford, ⅛.

INSURANCE.—Higher: Ocean Marine, ½.—Lower: Lancashire, 1-16; Liverpool, London, and Globe, 1½; London and Lancashire, ⅜; Manchester Fire, ½; Royal, 1⅞.

COAL, IRON, &C.—Lower: Bolckow Vaughan (£12 paid), 1-16 to ⅛; Ebbw Vale Steel, ¼ to ⅜; Tredegar A, ⅜ to ⅝.

TELEGRAPHS AND TELEPHONES.—Lower: Anglo-American 1; ditto, Deferred, ½: ditto, Preference, 1½; Direct United States Cable, ½.

BREWERIES.—Higher: Bent's, ½; Boddington's, ½; Showell's, ½; Taylor's Pref., ½ to ¾; Tamplin's Pref., ½.—Lower: Threlfall's, ½.

MISCELLANEOUS.—Higher: Chadwick's, ½; Howard and Bullough, ½; London and Manchester Plate Glass, ½; Manchester Palace of Varieties, 6d.; Spiers and Pond, ½; Gas Light A, 1.—Lower: Bell's Asbestos, ½; Coat's Ordinary, 1½; Cunard Steam, ½; Earle's Shipbuilding, ½; Eastman's, ½; Fowler Bros., ½; Hudson's Bay, ½; Pacific Steam, ½; Palmer A, ¾; Northern Assets, 6d.; Railway Debenture Trust, ½; Ship Canal Pref., ½.

LATER (4 P.M.).—Americans retain the chief share of attention. At opening there was some selling for profits on low purchases, but before long buying came in and the better tone remained up to close this day. Foregoing applies to Yankees, otherwise there is nothing of importance to report in changes for the day.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (December 26), writes:—During the past week there has not been much business doing, owing to the intervening Christmas holidays. Prices are generally lower on realisations.

In shares of coal, iron, and steel companies there has not been much business doing. Ebbw Vale are at 6; Marbella, 49s.; Niddrie, 41s.; Rosewell, 5⅞; and Steel Company of Scotland 73s. 6d.

In shares of foreign copper concerns prices are lower in sympathy with the market for the metal. Arizona touched 37s. 6d; Tinto, 14 13-16; and Tharsis, 90s., but are now all a little better.

In shares of gold and silver mines the majority of prices have declined, especially De Beers and Consolidated of South Africa. The usual dividend of 1s. has been announced by Broken Hill. Wemmer were lower, notwithstanding a dividend of 100 per cent. The leading shares are lower on realisations, the lowest points reached being 93s. 9d. for Chartered, 10 1-16 for Consolidated, 87s. 6d. for East Rand, 70s. for Johannesburg Investment, 45s. 6d. for Randfontein, and 29s. for Sheba. Afrikander are at 28s. 9d.; Aurora West, 25s.; Balaghat, 2s. 9d.; Bayley's Reward, 5s.; Bulawayo Gold Reef, 3s.; Black Flag, 11s. 3d.; Bechuanaland, 31s. 3d.; Craven's Caledonia, 1s. 9d.; City and Suburban, 82s. 6d., Crœsus, 31s. 3d.; Elkhorn Priority, 2s. 6d. premium; Golden Gate (C. T.), 1s.; Gold Fields of Mysore, 18s.; Holcomb, 1s.; Hauraki, 10s.; Jackson, 1s. 6d.; Klerksdorp, 11s.; La Plata, 1s. 6d.; Luipaard's Vlei, 16s.; Mysore Wynaad, 22s. 6d.; Mallina, 9s.; New Queen, 7s.; Nundydroog, 36s. 9d.; Oceana, 30s.; Rhodesian Mining and Finance, 12s.; Spes Bona, 25s.; United Gold Fields of Manica, 8s.; West Australian Mining, 8s.; West Australian Gold Concessions, 27s. 6d.; and Wolhuter, 6¾.

In shares of miscellaneous companies there is not much alteration to notice. In oil companies, Broxburn are at 12½, Pumpherston 9½, and Young's 46s. Nobel's Explosives 14¼.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of Dec. 24:—Home railway stocks have not been much affected by the alarm which caused such a panic in Americans, and even as regards the latter there is a much better feeling, with a considerable recovery from the lowest prices reached. The amount of business doing, however, is very limited. In home railways, Caledonian Deferred has receded from 50 15-16 to 50¼, North British from 40 to 39¾, Great Eastern from 87 to 86½, Brighton Deferred from 165⅝ to 165½, North Eastern from 163½ to 162¾, South-Eastern Deferred from 86 to 84½. Insurance shares have been affected by the panic. North British and Mercantile have fallen from 38 to 36¾, Liverpool and London and Globe from 50½ to 48¾, Royal from 51½ to 49½, Lancashire from 5⅜ to 5⅛, London and Lancashire from 17½ to 17. National Bank have declined from 353½ to 351. Scottish American Investment shares have fallen from 75s. to 65s., Scottish American Mortgage from 55s. to 52s. Arizona Copper have gone from 44s. to 39s. 6d., Rio Tinto from 15½ to 15. Oils unchanged, except Pumpherston, which have receded from 9 13 16 to 9½. Distillers 2s. 6d. lower at 19⅜.

TITANIC AND CARBO-TITANIC PAINT.—A new and seemingly valuable preservative against the corroding influences of the atmosphere is titanic and carbo-titanic paint—a preparation lately put upon the market by the Titanic Paint Company, of 83, Newhall-street, Birmingham. If all, or, indeed, any of the claims advanced on behalf of this new paint should be found justified in the fact, it is impossible to deny that its originators will have earned the gratitude of a very large section of the commercial community, for it is said not only to have the power of resisting the act on of acids, alkali, salt, sea-water, damp and gaseous influences, but furthermore, that it will cover 50 per cent. more surface than ordinary paint, that its use necessitates less labour, that it sets well without necessitating the application of dryers, that it is exceptionally durable, and, lastly, that it ensures to iron a protection from the oxidation arising from a climate even as rigorous and inclement as the one Englishmen are proud to possess. At first sight, it must be admitted that the invention has a promising appearance, and the very useful purposes which would be served by a preservative of this sort adequately fulfilling its object ought certainly to claim for it a fair and even sympathetic trial.

GERMAN IRON PRODUCTION.—According to statistics just published, the output during the month of November of pig iron by the furnaces of the south-western group of the German Iron and Steel Makers' Association in the Saar and Moselle districts amounted to 19,415 tons of puddling iron, 54,327 tons of Thomas iron, and 14,530 tons of foundry pigs—total 88,272 tons, against 93,419 tons in October, decrease 5½ per cent., and 93,483 tons in November last year, decrease also 5½ per cent. During the 11 months so far this year the total output in these districts has amounted to 1,012,512 tons, against 994,520 tons during the same period of 1894, an increase of 17,992 tons, or rather less than 2 per cent.

MEETINGS OF MINING COMPANIES.

ARROW BROWNHILL GOLD MINING COMPANY, LIMITED.

THE statutory ordinary general meeting of the Arrow Brownhill Gold Mining Company (Limited) was held on Monday last, at Winchester House, Mr. S. D. STONEHAM, the Chairman of the company, presiding.

The SECRETARY (Mr. C. B. Jessop) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—You are doubtless aware that at the first ordinary meeting of the company, called the statutory meeting, there is no business to be transacted, and no accounts to produce. The meeting only serves, so far as I can understand, as a means of calling the shareholders together, in order that the shareholders and the directors may be introduced to one another. We are very glad to have this opportunity of meeting you, and I hope that pleasure is reciprocated. Although there is no actual business to put before you, it is usual to make some sort of statement as to the proceedings of the company up to date. The company was formed to acquire, among other things, lease No. 421, comprising 18 acres of the Broad Arrow, and also for the purpose of carrying on ordinary prospecting, development, and exploring work. We took our name from the Arrow Brownhill Mine, which was the first property acquired, and which is situated on Broad Arrow, 45 miles to the east of Coolgardie, and about the same distance north of Kalgurlie. We received £10,000, which was not only subscribed, but actually paid into the coffers of the company for working capital, and with the exception of sums necessary for the development expenses and the ordinary working expenses of the company, that money is intact. We went to allotment on Sept. 17, and as the vendor was in England at that time we immediately obtained possession of the Broad Arrow property. So soon as we went into possession we took steps to proceed with the development, and on the recommendation of Mr. Harvey, who had reported on the mine, we appointed a temporary mine manager, and at the same time asked him to report on the question of providing machinery, as we wished, directly the mine was in a position to justify expenditure on machinery, to have it erected. We subsequently appointed as our engineer-in-chief a gentleman who had much larger business ability and experience than the temporary mine manager—a Mr. Taylor, who was introduced to us by a gentleman largely interested in the affairs of the company, and the recommendations and testimonials we had of him were such as to justify the appointment. Mr. Bratnober had known Mr. Taylor for a great many years; and we, as a board, had the opportunity of seeing him, and were very much impressed with his business qualifications as well as with his aptitude and straightforwardness. We, therefore, appointed him at a comparatively small salary, and he proceeded to West Australia on November 16, and he is now about due at Albany. We hoped to have had a cablegram saying he had arrived by this time, but it has not yet come to hand. Directly he arrives there he will proceed to the property, and advise us as to what should be done in the way of developing the mine and providing machinery. I may here remark that there has been some divergence of opinion as to the value of the property between Mr. Fearby and Mr. Harvey on the one hand, and our temporary mine manager on the other, and we shall be very pleased to have Mr. Taylor's report. But, in addition to owning the Arrow Brownhill, this company also owns 96 acres at Mount Vernon, which is about four or five miles to the east of the Hannan's township. We are told that the 96 acres is valuable gold-bearing ground. There has not been very much development work done upon it, but the developments are being pushed on now, and when we have more information to give you we shall only be too pleased to furnish it. At the present time all we know is that all the leases round about our claims have been pegged off, some of them by the best-known mining experts in West Australia, and we have every confidence that at Mount Vernon we have a very promising property. I do not know that I can say anything beyond that about the prospects of the company, because our engineer not having yet reached Australia, we are not in possession of those facts and data which would enable us to form an exact opinion as to what ought to be done. That is my objection to a statutory meeting. It is held rather too early to enable us to give you that full information which we should like to give, and it is rather too late, if anything, to undo what has been done, if that course is necessary; but you can rely upon this, that so soon as we get any information upon which we can absolutely rely, that information will be at your disposal. We fully understand that it is you who are entitled to the information, and we will not under any circumstances be known as a company or as a board of directors which keeps the information to itself and leaves the shareholders out in the cold. (Applause.)

Mr. PARRY enquired whether the titles to the properties were fully secured.

The CHAIRMAN, in reply, said that the directors were advised by the company's solicitors that the titles were all right.

Mr. PARRY proposed a vote of thanks to the Chairman for his lucid statement, and expressed the hope that next time they met they would have brighter and more favourable prospects.

The motion was duly seconded and carried.

The CHAIRMAN, in acknowledging the compliment, said he hoped to have the pleasure of moving the declaration of a large dividend at the next meeting.

The proceedings then terminated.

CONTINENTAL AND WESTERN AUSTRALIAN TRUST, LIMITED.

The first ordinary (statutory) general meeting of shareholders in the Continental and Western Australian Trust (Limited) was held on Monday last, at Winchester House, the Marquis of TWEEDDALE presiding.

The SECRETARY (Mr. A. S. Rowe) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This, as you are aware, is the statutory meeting, and at such an early period of the company's existence you will not, I am sure, expect to learn that very rapid progress has been made, more especially as for some years past business in connection with Western Australia has been extremely dull, and the directors thought it right to proceed with more than usual caution, and to exercise that care and prudence which we trust will always characterise the manner in which your affairs are conducted. Without further entering into any precise and detailed statement, I shall endeavour to place before you a sketch of the progress which our directors have already been able to make, and I have no doubt that in your judgment that statement will prove satisfactory. This company was registered on August 17, 1895. No promotion or advertising expenses were paid, but the company was floated by a prospectus which was circulated privately, and the scheme recommended itself as so thoroughly sound, and it was so heartily received and adopted, that ample capital was subscribed for making a good commencement. A matter of great importance and of cordial congratulation and satisfaction to all concerned is that arrangements were made with the company's general manager, and Messrs. Bewick, Moreing and Co., of London and West Australia, for the management of the company's business. This arrangement was made on terms which we consider exceedingly satisfactory to the company, and I have no doubt they will be equally satisfactory to yourselves. We have a general manager who is entirely devoted to this company's interests, and whose experience, ability and caution are a guarantee that the business undertaken at all times by this company shall be only such as is likely to contribute to our prosperity and success. The company's investments during the period of only four months have not been extensive or onerous, but your directors claim for them that they are sound and likely to be very profitable. Perth, as you know, is the capital of Western Australia; it is a city which has developed with great rapidity. Sites are becoming increasingly valuable, and land and open spaces have increased tenfold in value during the last three years, and reports made to your directors up to the present time point to a further remarkable increase in value in the near future. Having regard to this, your directors have acquired a substantial interest in a syndicate formed to take over substantial blocks of land with an extensive frontage on the Swan river, in a situation where sites are greatly sought for, and there is every reason to believe that this transaction will prove a very successful one. Then, again, a moderate interest has been taken and acquired for this company in various mining properties which your directors are advised are of very great promise and profit. I need hardly repeat that in regard to all properties submitted for the consideration of the directors, great care has been exercised by them and by the general manager, and also by their officers in Australia before participating in the same. Then we have taken options in certain mining properties for short periods, so as to give us time to make an examination of the properties before taking an interest in them. From these remarks, gentlemen, I think you will gather that, although the company has been in existence only for a short time, we have not been idle or neglectful of your interests. I do not think it is necessary for me to detain you any longer, but, of course, I shall be glad to answer any questions which may be addressed to me. I am sure you will be satisfied that there has been no want of diligence on the part of your directors in entering into business which promises to prove profitable in your interests. The general policy of the board in the future, as in the past, will be, with the valuable assistance of our general manager, to scrutinise with the utmost care and prudence any investment likely to prove profitable that may present itself to us. I have now only to thank you for your attendance on this occasion, and I hope that the next time I have the honour of meeting you, if not before, we shall be able to announce a dividend on the shares which is likely to prove substantial in character. There is no motion to make, this being a statutory meeting, but, as I said before, I shall be glad to reply to any enquiries that may be made.

Mr. HAWKINS asked the name of the general manager.

The CHAIRMAN replied that Mr. C. A. Moreing, of the firm of Messrs. Bewick, Moreing, and Co., was the general manager.

Mr. FERGUSON said that from what the meeting had heard from The Chairman, he thought they might feel perfectly happy about their investments in the Continental and Western Australian Trust (Limited). Theirs was undoubtedly a kind of business which, for its success, required clear-headed and energetic management, and that, he knew, they possessed in their Chairman and their very strong board, in their excellent general manager, and in Messrs. Bewick, Moreing, and Co., whose name was a tower of strength and confidence. He, personally, had most perfect confidence that in time the shareholders would obtain a satisfactory return for their money. The one thing he wished to add was that they must have patience, and remember that Rome was not built in a day.

The CHAIRMAN thanked Mr. Ferguson for his remarks, and added that no doubt with a return of confidence in the Australian market the company would be able to do a good business, which would yield satisfactory results.

The proceedings then terminated.

PREECE'S POINT PROPRIETARY.

The first ordinary (or statutory) meeting of Preece's Point Proprietary (Hauraki) Limited, was held on Saturday, at the offices of the company, Dashwood House, New Broad-street, E.C., Mr. F. MORTON EDEN presiding.

The SECRETARY (Mr. W. J. Lavington) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—You are aware that this is the meeting which we are compelled by law to hold within four months of the formation of the company. After that lapse of time it is not likely that much information can be given as to the working of the company. I do not know whether you are familiar with the property. I have here a map of it, and a description of it, from which it appears that we are in possession of what is likely to turn out an extremely valuable property. It contains an area of about 200 acres, which has been known for many years to be of an extremely auriferous character, and as there has been a great deal of mining going on in the neighbourhood for some years, it is natural that you should ask why this special property has not been explored before. The reason for this is a very good one. It is now Crown land, but private freehold property, and it was formerly in the hands of an old gentleman who would not allow the gold to be worked upon it. It came into the market solely on account of his death, when the executor was desirous of making the best use he could of it, and we purchased it. I may just as well read you one or two extracts from the report made on the property by Mr. John Reilly. He writes as follows:—"Several years ago on the south side of the peninsular, a leader running north-east and south-west, and dipping south-east, was driven on for a distance of 200 feet or thereabouts, by Snowden and party, and 2½ tons obtained from this leader gave a return of 263 ounces of gold." We do not hope or expect that the ore will run to that extent, but there are indications that there are very valuable spots in the mine. The report goes on to say:—"Some further work was now done by driving on the big lode, the hanging wall portion carrying the gold; 1 ton of this gave a return of 12 ounces, operations were eventually stopped, owing, I understand, to difficulties in making satisfactory arrangements with the private owners of the property. I know that this same difficulty has deterred further development of this ground, for had it been available for working, there is no spot in the district where more prospecting would have been carried on, it being a specially favourite locality with all the old miners to whom I have spoken on the matter." There are various other instances of small amounts of a few tons being got out of the mine, all of which produced a very large amount of gold. You are aware that our property is not very far away from the famous Hauraki Mine, which in the course of one year returned £64,000 to the shareholders. Captain W. H. Argall, in his report, says:—"The bearing of most of the reefs is in the direction of the Hauraki Gold Mining Company's property, therefore the same reef system traverses the both places, and I can clearly state that several of the reefs are running parallel to the main Hauraki true fissure vein. The rock formation is the same, the indications for gold are the same, and the Hauraki Gold Mine has produced large quantities of the precious metal before sea level, this property in depth, should be equally as rich or even richer." Well, the present value of the Hauraki property is about £6000 an acre. We have something over 200 acres, and at the price we are paying for it, it is at present valued at £500 an acre, so that there is considerable margin for improvement there. I do not think there is anything further I need mention with regard to the reports we have had from the mines. The purchase consideration for the mine was £80,000, which was partly paid for in cash and partly in shares. All that we have already paid is £10,935 in cash, and the balance of shares to be allotted to the vendors is 69,565. The working capital of the company is fixed at £17,000, with a reserve of £8000. 4s. has been called up, and there remains 1s. yet to be called. This is the last cablegram received from Captain Argall, who is in charge of the mine:—"Making a survey of all the company's property. Have selected a site for shaft. Will begin to sink the shaft at once; buildings in course of erection. Other portion of works I am taking necessary steps to push ahead with. The mine has produced in the past rich ore. Below the water mark I expect high grade, same as obtained by Hauraki Mining Company. I am convinced that this will open up a valuable mine." We wrote some time ago to Captain Argall, requesting him to inform us what machinery he would require, and it appears that after sinking from 100 or 150 feet, there is a good deal of water to be contended with, and, therefore, he sent us as pecification of a mining plant, which it will be necessary to put down before any considerable underground working can be entered upon. That machinery was ordered about a month ago, and the makers undertook that it should be ready in 10 weeks from the time of the order being placed in their hands. So I suppose that in about six weeks' time from now we shall be in a condition to ship the machinery. It was also proposed that a 10 stamp mill should be sent out. That has not been ordered yet; but if the directors decide upon using stamps, no time will be lost in ordering them. As you doubtless know, just now there is a controversy going on as to whether stamps will not be superseded by other methods—Krom's rolls or other equivalent machinery. Whether we shall order that will depend upon how we find that other mines are prospering who have put down Krom's rolls. I do not know whether there is anything else to mention, but if any gentleman present wishes to ask any questions, which are in our power to answer, we shall be very happy to give you all the information which is in our possession. I can only say, in conclusion, that I thoroughly believe that we have an extremely valuable property, and we have got a competent man in charge of it. The machinery is ordered, and will be on the spot before very long, and I am convinced that as far as obtaining the gold goes, it is very likely to be as good a property as that of the Hauraki Mine. You must also bear this in mind, that if, as we believe, we are successful in getting a large quantity of gold out for ourselves the property being such a large one that we cannot work it ourselves, and we shall have to form subsidiary companies to work other portions of it, which I need not say will be a source of considerable profit to the shareholders in the original Preece's Point Company.

In reply to SHAREHOLDERS, the CHAIRMAN stated that he did not anticipate that they would have any trouble about the water. In fact, Captain Argall had stated that the plant they had ordered would be sufficient to deal with it. They had ample funds on hand for working the property.

Mr. BEGBIE stated that he knew the property in New Zealand, and had a high opinion of it. It had never been worked to any depth. It was leased to a person who had worked a small portion of it, but he had neither the means or appliances to cope with the influx of water. Before giving up work, however, he got out some exceedingly rich stuff. There was plenty of fresh water on the property. The machinery sent out would be sufficient to cope with the water for another 500 feet. He had not the least doubt that they would find a great deal of rich gold from the property.

In reply to a SHAREHOLDER, the CHAIRMAN stated that there were 380 shareholders in the company.

The proceedings then terminated in the usual way.

TRANSVAAL GOLD EXPLORATION AND LAND COMPANY, LIMITED.

The tenth ordinary general meeting of the Transvaal Gold Exploration and Land Company (Limited) was held on Monday, at the Cannon-street Hotel, Mr. W. M. FARMER presiding.

The SECRETARY (Mr. C. E. Wells) read the notice convening the meeting.

The CHAIRMAN said: Ladies and gentlemen—I much regret the absence of your Chairman, who has gone to South Africa to inspect the properties of the Lisbon-Berlyn Company and the Lydenberg Gold Exploration Company, and intends looking over his eldest love, the mines and lands of the Transvaal Company. I, therefore, have the honour of presenting the accounts of the company, for, I presume, the last time to the shareholders, who have always received what I had to say with forbearance and courtesy, notwithstanding my shortcomings. Since our last annual meeting the development of the extensive property, has been carried on, both by your board directly and by the lessors of sundry portions—namely, Jubilee Hill, Grootfontein, and by Mr. S. Neumann, on the blocks over which he has secured options. With regard to the Jubilee Company, we are given to understand that the developments are satisfactory. This company has been absorbed by the Lydenburg Mining Estates Company. The lease under the agreement with Grootfontein has not, up to the latest advices, been signed at Pretoria—when this is done your company will receive the second instalment of £6000. Turning to the accounts, I do not think they need much explanation. Your capital is the same. The debenture account shows amount of issued bonds. The manager's drafts are represented by "Bullion in transit and on hand" on the other side of the account.—Dividends. These are dividend coupons which were not presented on September 30. The increase in sundry creditors is largely due to the fact that the men's pay-day for September was October 5, thus the September wages and salaries and the contractors' accounts for mining Bota, for removal of overburden, and for driving the Nu-Theta tunnel and the tunnels on the high level water-race were not paid until October, and they are, of course, brought in under the sundry creditors. The reserve account is now a book entry, the investments having been realised, and either spent in plant, or included in balance on hand—and the £93,338 is balance of profit and loss account at page 9. On the other side you will notice farm's account, £214 6s 8d—this is the same as last year—and you will see details of the items, works, buildings, &c., on page 17. The tailings, tree planting, and removal of Theta overburden have cost some £8000, and might appear in farm's account, as they are either improvements or developments. You will notice there is a larger amount of cash, ore and bullion on hand—portions of which will have to go to defray the debenture debt. In the working cost account you will notice a reduction in mining of 3s. per ton, transport of 4s. 3d. (result of rope tramway), in pan treatment of 3s. and in cyanide treatment of 5s. 10d., which, you will admit, is most satisfactory, though in battery crushing the cost has increased 6d. per ton. The mines charges are larger, the principal increases being—extra pay to manager and expenses travelling to England, and in cost of forwarding bullion, this latter being in proportion to the quantity forwarded is an item you will not cavil at. The revenue account shows an increase in recovery, but the cyanide bullion is still of very low value. On the working of your mines for the year a profit of £31,153 is shown—which is carried to the next page. Of the balance at 1894, £13,000 was paid out in January, 1895, and the commission for directors also provided for, leaving £8476 to be carried forward. In April and August two interim dividends were paid, amounting to £26,000, and there are items for income-tax and debenture issue, expense, &c. On the other side a year half the rent lease of Grootfontein, £6000. £2000 more will be paid on completion of lease, and as Mr. Brown and Mr. Spiers are about arriving at Pretoria, we may shortly hear that the matter is satisfactorily concluded. The board took advantage of the rise in Jubilee shares to dispose of them, and you will see £70,000 was received by their sale, and the sum of £5000 was paid to your company for options on certain other five blocks—£333 was made on the sale of our investments—showing a result of £93,338 at credit of profit and loss. You no doubt know the history of the company from its inception, until its collapse, in 1885, when the shares were down to 6d., and at the general meeting of shareholders on the reconstruction question, two gentlemen were put forward as members on the new board, on which Mr. N. Brown and Mr. H. Magnino remained as members of the old board, and Mr. Steele was also nominated for a seat. Of the two nominated by the shareholders, Mr. Crowder resigned about 1889, thinking, I believe, the outlook was not hopeful; the other, myself, remained, and I am glad to see the company has risen to the position it

now occupies, and having such promise for its future as to attract the attention of the heads of the largest institutions in the Transvaal, by whom offers of amalgamation have been proposed, and finally arranged, on terms by which at market rates at the time of completion £1,500,000 was its computed value. Your directors are now carrying on the work of the company on account of the purchasers, and final accounts cannot be adjusted until the negotiations are at the "transfer of assets and exchange for shares" stage, when the liquidation of the company will be brought before you. Meanwhile putting aside funds to retire debentures, and carry on the work, the board have declared a further interim dividend of 3s. 6d. per share, payable as soon as ever the warrants can be made out after the closing and balancing of the books. There remains very little for me to say. With regard to the position of the mines and works, you will find a detailed statement in the manager's report, and your board has every reason to think that under the eminent engineers who in future will pilot the work and develop the enormous resources of the mines, backed up by unlimited capital, the results will be most satisfactory. I beg to move—"That the directors' report and the accounts annexed thereto be received and adopted."

Major-General A. C. BRUCE seconded the motion.

Mr. BUCKLER enquired what the directors proposed to do with the large balance at their disposal.

Mr. LEA SMITH asked when the financial year of the new company would close, the probable date on which the annual meetings would be held in London, and whether the dividends of the new company would be paid to the English shareholders through the London office, or whether they would have to come from South Africa.

Mr. ISAAC JONES asked whether Mr. Neumann was likely to exercise his option in February.

The CHAIRMAN, in reply, said the directors went carefully into the position, and they did not think it advisable to declare a dividend of more than 3s. 6d. at the present time. Before the end of January he thought the directors would be in a position to liquidate the company, and then the liquidator would most likely pay out of the balance as much as he possibly could in the shape of a further dividend. The accounts were dated September 30. The directors had expended a good deal of money since to carry on the company for the amalgamated company. The gold which they were getting was being set against this, and there was a heavy balance owing to the Transvaal Company. There were items in the accounts, however, which they had to settle for in cash, and that would be a matter of account at the middle of January.

Mr. WEATHERBY said that at the first meeting held in connection with the amalgamation the Chairman stated that when the company was wound up there would be something like £70,000 to divide amongst the shareholders in the shape of dividend, after deducting the payment of the debentures, and allowing a sum of money to their worthy secretary, and also a small sum to the staff.

The CHAIRMAN said he was sorry that he had not the financial statement up to date, because there was a little difference in it, but the shareholders might rest assured that they would get all the dividends the directors could give them. In accordance with the suggestion of the Chairman of the committee, the directors had also given the manager a douceur, which he had no doubt the shareholders would approve, because it was owing to his indefatigable exertions that they had been able to carry on the work during the last nine years with so little capital. He was sorry that he was not able to answer the question as to when the company's financial year would end. The dividends would be paid to the shareholders wherever they were registered. He could not give any information as to whether Mr. Neumann intended to exercise his option or not.

The resolution was then put and carried unanimously.

The CHAIRMAN said the next business was the nomination of three gentlemen to seats on the board of the amalgamated company. He had received a letter from General Bruce requesting that his name should be withdrawn as a candidate. Mr. Steele also desired his name to be withdrawn, and he had just received notice that Mr. C. Smith also withdrew. At present only three names remained. He wished to state with regard to Mr. Nicol Brown, that in him they had a valuable and tried candidate, who, as a member of their present board, had stuck tenaciously all through to his faith in the company, and done the shareholders great service.

Mr. Nicol Brown, Mr. T. A. Sommers Scott, and Mr. W. M. Farmer were then duly elected as the nominees of the Transvaal Gold Company to seats on the board of the amalgamated company.

The CHAIRMAN stated that the board had received the following proxies:—For Mr. Nicol Brown, 62,400 votes; Mr. Farmer, 60,154; and Mr. Scott, 50,829.

The auditor—Mr. C. L. Nichols, F.C.A.—was reappointed, and the proceedings terminated.

THE BULUWAYO SYNDICATE, LIMITED.

The first annual ordinary general meeting of the shareholders of the Buluwayo Syndicate (Limited) was held on Monday, at Winchester House, Sir GEORGE W. R. CAMPBELL, the Chairman of the company, presiding.

The SECRETARY (Mr. W. Milne) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—You have doubtless all received our circular of the 1st ult., announcing a bonus of 25 per cent., and our notice of this annual ordinary general meeting, together with a statement of our accounts from November, 1893, to October 31, 1895. These documents have given you some details of the progress of our company so far, and of its prospects for the future. I propose now to go briefly over the same ground, touching upon the real value of our assets, our work and prospects in the future, and on some general matters—among them the railway extension and the labour question in Rhodesia. First, I believe our company originated in the active and fertile brain of our friend, Robert Williams, our consulting engineer. Mr. Williams, knowing that each volunteer going to fight against Lobengula would, in the event of victory, obtain as his payment about 6000 acres of land and 20 gold claims, and looking upon victory as a foregone conclusion, advised the formation of a syndicate to send agents with the columns to purchase such farms and claims as became available. Thus, about two years ago—in November, 1893—our syndicate was formed, with the very moderate capital of £12,000, and began work at once on the lines indicated. Within three months, however, the capital was raised to £40,000, and Messrs. Barnato Brothers and their friends took a large interest in our syndicate, and Mr. John Hayes Hammond became associated with our consulting engineers, Messrs. R. Williams and Co. For this provision of fresh capital for the development of Rhodesia our syndicate acquired, free of cost, a grant of 100,000 acres of land. Again, on August 8, 1894, we raised the capital to £50,000, so as to give an interest in our company, to the extent of £10,000, to the Consolidated Gold Fields of South Africa. And yet again, on August 8 last, we raised the capital to £150,000, so as to purchase all the assets of the Copenhagen, Northumberland, and De Beers Syndicates, and to pay the vendors with 39,000 of our Buluwayo shares. Of the capital of £150,000 we have issued 115,550 shares, and favourable offers for the remaining 34,450 shares, at a good premium, are under consideration. Among the assets of these three companies which we have absorbed is one of 42,651 fully-paid £1 shares in the United Rhodesia Gold Fields (Limited). In all these many changes for the benefit of your company your directors had a great deal of care and responsibility and hard work. I may add here that among them they hold nearly 9000 of your shares, and that there are now 580 shareholders in the company. In the directors' report you will find your land set down as 467,060 acres (an area as large as Buckinghamshire), exclusive of the coal farms. Of these 467,060 acres, 268,000 are in Matabeleland and 199,060 are in Mashonaland. Not much development has yet taken place in these or any other Rhodesian agricultural districts; but the time will undoubtedly come when valuable tropical and subtropical produce will be largely grown there, and when vast herds of cattle will be reared. I believe the time is not far distant when the sons of English gentlemen will flock to Rhodesia to make homes, and, in many instances, fortunes, and that the price of land will go far above what it is now. About 50 years ago in Ceylon good forest land could be had at 5s. an acre, and the same land rose to as high as £24 an acre in 1875, after young men from Britain had settled in large numbers and opened coffee and subsequently tea estates there. Many of these men, belonging to excellent English and Scotch families, found their portions, as younger sons, invested there to infinitely more advantage than they could have been at home. The want of railroads and ordinary cart roads in Rhodesia, and the scarcity of labour, undoubtedly retard the opening up of farms; but those wants will be met by degrees. Many of our farms are most excellently situated for agriculture or for cattle, and, many of them, being traversed by gold belts, may turn out most valuable. The Chartered Company have a right, I believe, to take back any farm or portion of a farm through which a valuable gold reef runs, but if it does it must pay for it at the rate of 30s. an acre. You will find in your balance-sheet that your farms, claims, and mining rights, with the cost of developing them so far, are set down at £23,072 2s. 5d., which is an absurdly low value. It is so set down because we have been induced to place all our assets (except United Rhodesia shares) at cost price, no matter how much they may have increased in value since we bought them. The farms in Matabeleland would be cheaply valued at 2s. 6d. an acre, which, for the 268,000 acres, gives £33,500. The farms in Mashonaland will be cheaply valued at 2s. an acre, which, for the 199,060 acres, would give £19,900. Both together are thus worth £53,400. I now turn to the 1231 claims belonging to our company, which are mentioned in the directors' report. They are, in reality, equal to 1143 claims, because in two small groups, the Victoria and Umfali claims (as you will see in the same report), we have only one-third interest and one-fourth interest respectively. These 1143 claims, at £100 per claim, alone are worth £114,300, although, as I have just said, they, together with our enormous expanses of land, are set down at only £23,072 2s. 5d. If we sell these claims or a part of them, as well as we have already sold such few claims as we have parted with, we shall find them even more valuable than £100 a claim. We have, as you are aware, already sold other claims to the United Rhodesia Gold Fields for 60,000 of their shares fully-paid, and to the Brand-Grey Syndicate at a handsome profit. We will probably, as time goes on, acquire other claims on favourable terms, but those we have at present afford ample scope for development and sale; being, as I mentioned at a former meeting, an aggregate of some 40 miles of reef, scattered throughout the most favoured auriferous districts of Rhodesia. The development of our mines has been retarded even more than that of our farms by want of roads and railroads and native labourers, and even, I believe, of mining engineers. It is obviously impossible, except at immense cost, to bring heavy machinery to outlying mines. As regards engineers, matters will much improve under a system devised by Mr. Hammond and Mr. Robert Williams, by which an excellent staff of qualified engineers will be placed in Matabeleland and Mashonaland. In Mashonaland there will be Messrs. Webb, junior, Bush and Byrde, and in Matabeleland there will be Messrs. Webb, Anderson, Edwards and Bayne, all these gentlemen being advised and guided by Messrs. Hammond and Robert Williams. Each country will be divided into districts, and in each of these districts the properties of all Mr. Williams's group of companies will be inaugurated by a competent officer with a view to their individual and mutual interests. We shall thus have the benefit of the prudence, energy, and knowledge which Messrs. Hammond and Williams are known to bring to their work. There has been apprehension for some time past regarding a sufficiency of labour for Rhodesia, and every day brings us reports of its scarcity both there and on the Randt. It seems to me that all means should be taken to meet this difficulty, and I am glad to learn that the question is receiving attention on the spot. There is a system of obtaining labour in South Africa by paying European agents to visit centres of native population, and thence through the chiefs sending in bodies of labourers to the works. Now, quite a different system of recruiting prevails in Ceylon, where every day of the year from 200,000 to 300,000 imported labourers are employed. It seems to me possible that the two systems might be employed simultaneously in South Africa, and possibly in process of time the Ceylon system would partly or wholly supersede the present system in South Africa. The Ceylon system is not to employ European recruiters, but to entrust native labourers of known character with moderate sums of money and send them to their native countries to make advances for maintenance of families and for travelling expenses and bring back as many as they can of their fellow-countrymen for labour on the estates. Now, if it is possible to introduce this system into South Africa as an auxiliary to the present system there, there is in Buluwayo a gentleman who has long administered the Ceylon system, with which he is thoroughly conversant, That gentlemen is Mr. A. H. Bisset, whom I have already mentioned. I have in this connection brought his name prominently before several of my companies, and they have approved the suggestion of a trial of the Ceylon system, and some of them have urged me to write to Dr. Jameson, with a view to his consulting Mr. Bisset and considering the subject thoroughly. With regard to railways, at a recent company's general meeting—I think that of the Exploring Land and Minerals—Mr. John Oakley Maund, one of the shrewdest and most far-seeing men connected with South African enterprise, impressed upon his shareholders the necessity for pushing forward with the utmost vigour the railway from Beira to Salisbury. There can be no doubt at all of the urgency for doing so. I think there is no doubt whatever that Mr. Maund's words are the words of wisdom, and that his advice should be acted upon—viz., that all companies holding Mashona property should press with all their might, and assist with their money, if necessary, to get the Beira Railway extended to Salisbury at the very earliest date possible. (Hear, hear.) To go back for a moment to your balance-sheet, I would say that I think our various assets other than those I have already touched upon may prove very valuable. I refer to the nitrate, plumbago, and coal areas, and to the building sites in Victoria. On the whole, I think our prospects very promising. I do not view with any apprehension or as likely to affect Rhodesia injuriously, the little political clouds which are just now above the horizon in America, Turkey, and the Transvaal. Statesmen of the present day are too wise and prudent to incur the horrors of a war lightly. And as for the present depression in South African shares, it is common to all shares, and is but the reaction from over-sanguine speculation. I think our own company's prospects are decidedly good. So far I think we have not done badly as a company, seeing that we have, within two years of our incorporation, given a dividend of 25 per cent., and that we have assets and a balance so valuable, even though the assets, consisting of claims and lands, are placed at so low a valuation as that in the balance-sheet.

Mr. ROBERT WILLIAMS said:—During my recent visit to Rhodesia my time was entirely occupied in making arrangements in conjunction with the Carrs' Gold Fields of South Africa, the Mashonaland Agency, and the Rhodesia Company, to float our combined interests in each district into large district companies, with management and engineering staffs on the spot. Towards this end the various companies interested sent out their head engineers, Messrs. Webb, St. Auburn, Watson and Wrus, with their assistants, to make reports on each district, and these reports are expected in London any week. The development of your property had almost entirely been confined to the Eagle reef up till last August, as your company's finances were not so flourishing up till that date. Since then your company having been put in a first-class financial position, I started active development work on all your claims, in order to have as much work as possible opened up for the inspection of the engineers reporting for the proposed district companies. Generally, the prospects of Rhodesia are improving with development, and it is noteworthy that several reefs have been proved to 120 feet, and up to 200 feet, to be equally valuable in size and assay as they were on the surface. The railways from the East Coast and Cape Town are now being extended to Umtali and Buluwayo respectively, and within three years these places ought to be connected by rail to the coast, and mining in Rhodesia will be done on economical lines.

The CHAIRMAN then formally moved that the report of the directors and auditors, and statement of accounts for the period ending October 31, 1895, be and the same are hereby adopted.

Mr. WOOLF JOEL seconded the motion, and in reply to a question stated that when 13,000 of the company's shares were placed at a premium an option for a further 20,000 was given at a higher price than at present ruled. For the moment it looked as if the option would not be exercised, in which case the directors would be willing to take an opinion as to whether they should first be offered to the shareholders or the matter left to the directors to do the best they could with them.

The motion, after a short discussion, was carried unanimously.

On the motion of Colonel FLETCHER VANE, £2000 per annum was voted to the directors for the years 1895 and 1896. The retiring auditors, Messrs. Frith and Clarke, were re-appointed, and the proceedings terminated with a vote of thanks to the Chairman and directors.

THE VICTOR-WAIHOU GOLD MINING COMPANY, LIMITED.

An extraordinary general meeting of shareholders in the Victor-Waihou Gold Mining Company (Limited) was held yesterday, at Winchester House, the chair being occupied by Mr. HENRY WILSON.

The CHAIRMAN, at the commencement of the proceedings, said: Gentlemen—I must express my regret at being obliged to call you together so soon after our statutory meeting on the 19th, but it is absolutely necessary that we should be energetic in completing the work we are about to consider to-day, and that is the acquisition of an additional block called the Royal Mail.

The SECRETARY having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—I presume you have all had a copy of the notice convening the meeting, and the objects are fully set forth in that notice. It is to ask your sanction to steps which it is necessary to take and to legalise in the usual formal way by submitting for your approval three separate resolutions, all of which have for their object the same thing—viz., to acquire a property called the Royal Mail, and adjoining yours immediately on the north. You will recollect that in the prospectus reference was made to the Royal Mail, and it was stated in the body of that document that steps were then being taken with a view to acquire it. Provision was also made in the Articles of Association for increasing the capital of the company in the event of our being successful in the negotiations then proceeding. At the statutory meeting of the company all matters which had immediate reference to the object then in contemplation—the acquisition of the Royal Mail—the value of that property, and the prospects of this company in relation thereto, were fully explained to you by Mr. Seaver, our consulting engineer, so that I think it would be quite unnecessary for me to take up your time to-day by going into those matters which have already been so fully put before you. With your permission, then, I will read the three resolutions which it is proposed to put. The first is:—

> That the company do acquire the Royal Mail Licensed Holding (lying adjacent to the Victor and the Waihou Licensed Holdings already acquired by the company) for the sum of £47,500, payable as to £500 in cash and as to £47,000 in shares in the company credited as fully paid up.

We never expected to get the property for so small a cash payment as £500, and that we have done so is entirely owing to the friendly influence of our consulting engineer. The next resolution is as follows:—

> That the draft agreement submitted to this meeting for the purchase of the said Royal Mail Licensed Holding, and expressed to be made between the Victor Gold Mining Company, no liability (the vendors), by Jonathan Charles Billing Pockerage Seaver, their attorney, of the one part, and this company of the other part, be and the same is hereby approved, and that the directors of this company be and they are hereby authorised to enter into an agreement with the said Victor Gold Mining Company, no liability, by their said attorney, in the terms of the said draft, and to carry the same into effect with such (if any) modifications as they think expedient.

The last, I suppose, is legal phraseology, and I can plainly tell you that no modifications can possibly be sanctioned in connection with the object we have in view. The last resolution runs as follows:—

> That the capital of this company be increased to £170,000 by the creation of 120,000 new shares of 10s. each.

Those are the resolutions I propose to submit to you, but before putting them I should be glad to hear any points upon which you may like some information. The Chairman concluded by moving the resolutions.

Mr. SMEDLEY seconded the resolutions.

The CHAIRMAN, in answer to a question, said that the shareholders would have an opportunity for subscribing *pro rata* for the new issue,

The resolutions were then put and carried unanimously, and on the motion of Mr. BINGHAM, a vote of thanks was given to the Chairman and directors.

Mr. SEAVER, in response to a request from the body of the hall, briefly recapitulated the facts in connection with the new property, illustrating his remarks by means of an enlarged plan of the Karangahake field. The lines of reef marked in the plan converged, he said, in the Victor property, and before they entered that property they converged in the Royal Mail. There was no doubt about their existing in these properties, because they outcropped at the surface. When once they had proved a sufficiently large body of ore they would have no difficulty in bringing it to the machine site. Mr. Seaver concluded by expressing his conviction that there was not another block of land on the whole field which could be looked upon with so much confidence as those possessed by the company.

The proceedings then terminated.

GOLCONDA GOLD MINES (LIMITED).

Mr. W. R. Price, M.P., presided on Monday at an ordinary general meeting of this company, held at Winchester house. He said they had been developing their various new properties with varying degrees of success, and he thought all or most of these properties were well worth the money that had been paid for them. Of the £10,000 due to the vendors, the company had been able to pay them £5300, but, unfortunately they had not been able to produce as much gold as was anticipated, and after boring to a depth of £400 feet, there was a sudden outburst of water, with which their pumping machinery was unable to cope. It was owing to this that the directors found it absolutely necessary to ask for more capital. The directors felt that they possessed a good and sound property, if it were only worked in the proper way. They estimated the cost of what they required, at about £10,000, and the proposals he had to submit made full allowance for this and all contingencies. They had returns before them showing a consistent yield of ore to the extent of 2 ounces to the ton, and their gold was very fine, and fetched about £4 per ounce. They had their entire issue guaranteed in shares not taken up by the shareholders, the only consideration being a right to pay at par, meaning 20s. for every 9000 of the unissued shares which the company would then have. That was a very remarkable proposition, and showed such faith in the Golconda Mines as would, he thought, be thoroughly appreciated by the shareholders. In conclusion, he moved that reconstruction being desirable, the company be wound up voluntarily, and that Mr. J. Morison, the liquidator, be authorised to consent to the registration of a new company to be named the Golconda Gold Mines (Limited).—Mr. Dove seconded the resolution, which was unanimously carried, and the proceedings terminated.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(FROM OUR SPECIAL CORRESPONDENT.)

THE Christmas holidays have deprived the share market of the little life it possessed, and there has been practically nothing doing during the week. Prospects for the New Year are not too hopeful, and the cautious tone of Mr. Strauss' remarks at Polberro shows that he, at all events, does not anticipate any material rise in the price of tin in the near future. Without such a rise, the richest of the Cornish mines cannot hope to make anything like handsome profits, nor can the working miners look for any advance on the present barely "living" wage.

THE long and weary dispute between Wheal Agar and East Pool still drags on. Efforts are being made to bring about a settlement, but so far they have not met with the success which is so much to be desired in the interests of the mining industry as a whole, altogether apart from the shareholders in the mines most nearly affected. A meeting was held at Tincroft account house last week, at which Lord Robartes, Mr. Bolitho, M.P. and other gentlemen were present. It is reported that Lord Robartes was asked to insist on a settlement of the water question, if possible by arbitration, and that failing, that he should use his influence to prevent the flooding of the adjoining setts by requiring either that the Wheal Agar engine should be kept at work, according to the covenants of the lease, or failing that, his lordship would, in all probability, revoke the lease.

AT the sale of copper ores at Redruth, on Thursday, Levant headed the list of ticketing mines with 1010 tons, which sold for £4163 10s. Devon Great Consols, the next on the list, was a long way behind the St. Just Mine, offering only 361 tons, which fetched £712 18s. For one of the parcels of Levant ore as much as £24 17s. 6d. per ton was paid. The mine was never turning out so large an amount of copper as it is at present, and the bottom levels are opening out well.

THE amalgamation negotiations between Wheal Basset and South Frances are not yet concluded, but they are proceeding without any serious hitch, and a satisfactory arrangement will doubtless be arrived at ere long. The amount to be paid by South Frances for the engine recently destroyed has been agreed upon. It is probable that the new company will not place an engine upon this shaft—at all events, not for some time to come. Wheal Basset continues to open up well in the bottom, and the shareholders have every reason to be satisfied with the prospects.

CAPTAIN BISHOP'S eagerly awaited report on Carn Brea has been issued to the shareholders, accompanied by a note in which the purser is careful to state that the manager of East Pool and Wheal Grenville was requested to inspect the mine with the entire concurrence of Captain White and the other agents. Captain Bishop's is anything but a "knocking" report, and will doubtless encourage the shareholders to persevere. Incidentally he gives a certificate of efficiency to the present staff, for he expresses the opinion that the underground operations in the general development of the mine, and especially in the more difficult part at Highburrow east, have been carried out in a miner-like manner. One of the most important recommendations in the report concerns the south Druid's lode. This has been worked extensively, and has produced ore of average quality; but Captain Bishop is confident that as depth is attained it will become richer. He recommends, as the best course, the erection of an engine on Trestrail's shaft. The lode could then be worked direct, and the north Druid's lode could be worked from it. With regard to the future working of the Highburrow lode, Captain Bishop recommends the sinking of Harvey's shaft below the 334 fathom level, and to crosscut south for the lode if it does not form in the shaft. In the eastern part he thinks that the 334 and 332 fathom levels east should be driven with all possible speed, while to the west he recommends the management to drive the 334 fathom level west to Poddler's crosscourse and communicate with the 310, both levels then to be driven towards Highburrow west by boring machines. Evidently Captain Bishop considers that more and not less development is what is required at Carn Brea, and the only question is whether the shareholders will be willing to find the money for all the operations which he suggests.

MINING NOTES FROM JOHANNESBURG.

By H. BUSH, M.E.

KIMBERLEY ROODEPOORT.

This mine is situated on the main reef series some 9 miles west of Johannesburg on the Farm Roodepoort; it is bounded on the south by Vogelstruisfontein, east by the Vogelstruis Gold Mining Company, and west by the Durban Roodepoort. The entire area is 167 claims, including water rights and mynpacht. Of these 70 only contain reefs, and five have already been worked out. There is also on the line of reef, known as the Kimberley series, a mynpacht of 68 morgen. Unfortunately, the reef is of very low grade, and cannot be treated until cheaper processes are introduced. The underground workings consist of a main vertical shaft, down to a depth of 324 feet, and from which drives and crosscuts are made for four levels; it is situated on the western boundary. The width of the main reef is about 3 feet, and assays average 13 dwts. The width of the south reef is 6 inches, assaying 2 ounces. No. 1 east incline shaft is down on the main reef 146 feet. One level is driven north at 90 feet from the surface. No. 2 east incline shaft is down 140 feet with the first level at 100 feet; driving on the main reef at this level amounts to the eastward to 200 feet and westward to 250 feet. In almost the centre of the mynpacht a new incline shaft is sunk on the main reef, and is down 210 feet. The shaft is 16 feet by 5 feet 6 inches in the clear; it is well timbered throughout by 9 inch by 9 inch oregon pine. It is intended that eventually it shall be the shaft from which all ore will be hauled and sorted to the battery. Connection has been driven to the drives of the vertical shaft, through which the whole western section will be worked out. It is to be fitted out with a rock house and a sorting belt, ore bins, and stone-breakers; in short, equipped with all the necessaries for a main shaft of a big mine with stamping power of 100 stamps. There are at present 55,400 tons of ore developed ready for stoping. The mine is being thoroughly and systematically sampled, and an assay plant completed, giving results every 10 feet in stopes, drives, rises, and winzes. Under the supervision of Mr. Starr, consulting engineer, the present 40 head stamp mill is out of date, being too light for the work. A new 50 head mill of heavy type is to be erected, together with boiler house. The battery engine will be capable of driving 100 stamps. The cyanide plant is to be enlarged so as to be capable of dealing with 10,000 tons per month. A new rock-drill plant (20 drills) is being erected. It is the intention of the company to start crushing with the present mill in the course of three weeks.

MEYER AND CHARLTON.

The mine has encountered a poor zone of ore, and in consequence for the next three months the returns will be considerably reduced.

MODDERFONTEIN.

The new 60 stamp mill is now complete, and should be in thorough working order within three weeks.

PRINCESS.

The directorate of the Steyn Estate are largely buying into this property for investment.

NEW KLEINFONTEIN.

At the 400 feet level the reef has widened out from 4 to 7 feet; there are 210,000 tons of ore in sight. Up to the present 10 dwts. have been obtained. From January the stuff obtained from the bottom of the shaft will be crushed.

BUFFELSDOORN.

A dyke has been struck of considerable dimensions, apparently a quarter of a mile in width; this will necessarily diminish the output.

BUFFELSDOORN CONSOLIDATED.

The reef on this property is 4 feet wide, and pannings average 15 dwts.

CINDERELLA DEEP,

recently floated by Mr. George Albu, consists of 300 claims, and holds the Zierbogen ground carrying the Kimberley series worth 7 dwts. It is expected that the main reef will be struck at about 1400 feet; the working capital is £150,000.

KLEINFONTEIN DEEP.

This is one of the deepest propositions on these fields. It will be necessary to sink vertically 4000 feet before the reef is struck.

WESTERN KLEINFONTEIN.

There is only one reef on this property—viz., the Kleinfontein. Unfortunately, the Chimes reef only skirts the southern boundary.

NORTH VAN RYN EXPLORATION COMPANY.

So far no reef has been discovered on this property, and at present it does not look any better than an agricultural proposition.

MINING AND METALLURGY OF QUICKSILVER IN MEXICO.*

By JAMES MACFARLANE.

Part I.

THE Mining and metallurgy of quicksilver in the Old World has formed the subject of much investigation, and the literature dealing with it is very full and complete. The very able Memoir of Kusst on the Almaden Mines, and the splendid Austrian Government publications dealing with the mines of Idria,‡ leave but little to be said as regards these deposits, while Becker's classic work on the quicksilver deposits of the Pacific slope gives very full details regarding those which are to be found in California, as well as a great deal of general information on the various quicksilver deposits of the world generally.

Comparatively little, however, has been published bearing on the Mexican quicksilver deposits, or the methods of working them, although we find in the writings of Humboldt, de Cortazar, Ramirez, de Laguerenne, and a few others, valuable information of its kind, but details are sadly wanting as to the geology of the deposits and mines themselves, and the methods of extracting the metal from its ores.

To account for this, it is necessary to consider the condition of matters which existed during the domination of Mexico by the Spaniards, who discouraged in every way the attempts made to exploit the quicksilver deposits, which, even then, were from time to time discovered. It was feared that the large revenue accruing to the Crown of Spain from the Spanish quicksilver mines would be seriously affected by any independent supply of the quicksilver necessary to the development of the silver mines of "New Spain."

Attempts were made, however, even in those early days to open up some of the deposits, and evidently with some degree of success, as, in 1718, a formal order was directed to the "Presidente and oydores of the Audiencia of the City of Mexico, in the province of New Spain," commanding "Don Juan Joseph de Veitia to close and destroy the works and mines or veins of quicksilver discovered in the vicinity of the City of Cuernavaca, 25 leagues south of the City of Mexico."

Similar orders were issued in 1730, and again in 1745, prohibiting the working of quicksilver mines; while the mining laws of that time, although permitting the "free discovery and denouncement of quicksilver mines," also stated that the right to work these mines was already reserved to the Crown. Such conditions were certainly not calculated to foster the production of quicksilver in Mexico, and fully account for the neglect of this branch of mining and metallurgy, at a period when the production of precious metals and the reduction of their ores was being developed with the greatest industry and skill.

The revolution which freed Mexico from the position of a province of Spain, changed these conditions, and, with the view of becoming independent of the European quicksilver mines, every encouragement was given to the discovery and development of quicksilver deposits. In 1843, the then President of the Republic, General Santa Anna, issued a law freeing quicksilver mines and reduction works from all taxes, and further granting exemption from military service and personal taxes to the workmen. Further than this, a premium of $25,000 was offered to each one of the first four prospectors who should extract in a year 2000 quintales, equal to (say) 2700 flasks of quicksilver. So far as appears from the official records, the only mines known so have earned this premium were those at Guadalcazar, in the State of San Luis Potosi, which mines will be described later on in this paper.

From this date active search has been made by the prospectors, of which Mexico is full, and, as a result, quicksilver deposits of more or less importance have been found extending over a vast distance. Such deposits, according to Senor Ramirez, Government engineer of mines, are known to exist in the States of Chihuahua, Durango, Zacatecas, San Luis Potosi, Guanajuato, Queretaro, Hidalgo, Jalisco, Mexico, Morelos, Guerrero, Oaxaca.

It would seem as if the general line of the Californian deposits were continued through the Mexican mountain ranges, but there seems also to be another line of deposits extending in a direction N.E. and S.W., and which run through the States of Guerrero, Morelos, Guanajuato, Michoacan, Mexico, Queretero, San Luis Potosi.

The author of this paper, having visited Mexico professionally on several occasions, specially in connection with the mining and metallurgy of quicksilver, has had the opportunity of obtaining much valuable information regarding many of the deposits that have been opened up along this latter line, and it is with these that it is proposed more particularly to deal in the present paper.

It is found that there are very considerable differences to be met with, both as regards the character of the quicksilver deposits themselves, and the nature of the associated rocks, but it is abundantly clear that there is no exception to the general rule which obtains elsewhere, and that the deposits have in all cases resulted from the action of mineral springs. There can scarcely be a doubt that these were hot springs, similar in character to those now in action in California and New Zealand.

One cannot ride over the country without being struck with the magnitude of the volcanic disturbance that may have taken place, and the immense changes brought about by the disruptive nature of the action; indeed, in some parts of the country—notably in the neighbourhood of Tasco—the mule track up the mountain to where some workings have been started on a prospect of cinnabar passes through some country that looks as if it was only yesterday that the volcanic fires had devastated the district, the bright red colour of the rocks making one imagine, as one rides along the steep and narrow track, that the volcanic fires are still in action, and at any moment may flash forth from the deep chasms in the splintered and jagged rocks that border the path, and which seem still to be red-hot and glowing.

Away to the north-west, in the Guadalcazar district, a great crater, with almost vertical walls, red with oxide of iron, is to be seen, and the surrounding country is covered with stones and boulder-blocks of magnetic oxide of iron that seem to have been fired out of the crater, showing that the great convulsion has not been confined to one district, but has been widespread and general along the line; in fact, it is no doubt in consequence of there being what may be called a great line of fracture that the pent-up waters have found a series of vents, and given rise to the numberless quicksilver deposits that are probably in many cases of but little value commercially, but in others exceptionally rich and extensive.

The peculiar formation of Mexico, rising, as it were, by a series of stages or steps from both the Atlantic and Pacific Oceans, is generally known, but it is difficult to realise how steep the various steps are unless one has had the opportunity of riding over the country. Thus, between the Pacific and the town of Toluca, on the Mexican National Railroad, there is a rise of over 8000 feet in a distance of only about 175 miles as the crow flies. As one rides up here from the Pacific, there is first a high range of mountains, then a great plain or valley through which runs the Balsas or Mescal river, the plain being at Ajuchitlan, only some 800 feet above the sea level, and rising slowly to 1050 feet at San Antonio. From this point there is a rapid rise to the crest of the Sierra at Amatepec, which is at an elevation of 6050 feet, being a rise of 5000 feet in a ride of 12 hours, the latter portion being exceedingly steep; the descent from Amatepec is also steep, and the road or track passes over a long plain rising from 4200 feet to 4800 feet at Tegupilco. From here there is again a rapid rise to 6200 feet, at about which level it continues to Temescaltepec, where the level is 5800 feet, a distance of about eight hours' ride. It now rises slowly for a distance of about seven hours' ride, and then again very rapidly to Toluca at 8100 feet, where we are practically on the Great Central Plateau, from which, by a somewhat similar series of terraces and mountain ranges, the Gulf of Mexico is reached!

On the lowest terrace on the Pacific side, where the States of Michoacan and Guerrero join on the Balsas River, very extensive deposits of cinnabar are known to exist, and attempts have been made from time to time to exploit them.

In 1851 General Alvarez commenced to erect distilling apparatus close to the small town of Tlapehuala, on behalf of the State, but after his arrangements had been made, and while the material was being transported across country, the revolution broke out, the ironwork was abandoned, left on the roads, and is now widely scattered over the country, the proposed furnaces never being erected.

Deposits in the State of Michoacan.

The first series of mines visited by the author were close to Tlapehuala, and practically on the border line which here divides the States of Michoacan and Guerrero. A very considerable amount of work had been done on this group of mines, of which six were visited, and all were found to be of similar type, the deposits consisting of a series of layers of comparatively soft, earthy matter, separated by layers of hard rock, much shattered and fissured and strongly impregnated with copper in the form of small veins and patches of azurite and green carbonate.

The mines visited were known locally as—

Tiro Quadrado.

A small roughly-formed shaft, evidently long ago abandoned, and down which one had to be lowered in the loop of a lasso. The shaft was found to pass through first a black rock, strongly impregnated with copper salts and much shattered, below were alternate layers of soft earth and hard rock to the full depth of the shaft, about 30 feet, where a vein carrying copper with much iron oxide from decomposed pyrites could be traced. Specimens taken from the earthy layer were found to contain from 0·10 to 0·13 per cent. of quicksilver. A small amount of tunnelling had been done from the bottom of the shaft.

Gachupina.

The workings of this mine form a large cave, with many galleries branching off from it in various directions.

A considerable amount of excavation has been done, the main working or cave measuring nearly 50 feet in length by about 20 feet in width, and being in many places from 8 feet to 20 feet high.

The formation is quite similar to that of the "Tiro Quadrado,' there being a series of layers of hard rock and earthy matter irregularly disposed, the rock containing invariably considerable indications of copper. The upper earthy layer was believed locally to be specially rich in quicksilver, and specimens taken from this layer were found to contain 0.33 and 0.40 per cent. of quicksilver.

Some of the galleries were of considerable length and worked gradually downwards. Specimens of the earthly material, taken from the lowest point which is was possible to reach, were found not to contain any quicksilver whatever.

The rock here is very hard, in some places very much of the character of quartzite, there being also much chalcedonic quartz.

Guarache.

The workings here are not extensive, but go down to about 20 feet in depth under the hard rock capping, which seems specially rich in copper, the same alternate layers of earthy matter and hard rock being found.

* A paper read at the recent meeting of the Institution of Mining and Metallurgy.

† Annales des Mines, 1871.

‡ Published under the direction of Lipold and Plamineck.

Specimens from the upper layers were found to contain 0·20 and 0·23 per cent. of quicksilver, while, from the lowest layer of earthy matter exposed at this point, a specimen was found to contain 1·2 per cent. of quicksilver.

Vahido.

At this mine there is only a small pit with a short gallery driven in a somewhat thick layer of earth, specimens from the upper portion of which contained 0·17 and 0·23 per cent. of quicksilver, while, at the lowest point, specimens contained 0·10 and 0·17 per cent. of quicksilver.

Boca de la Judea.

These workings are evidently of considerable antiquity. The character of the deposits is entirely similar to those previously described. Specimens were found to contain 0·10 to 0·17 per cent. of quicksilver.

Mina Hedionda.

These workings are somewhat extensive, consisting of a shaft, at the bottom of which are strong indications of copper, which has been worked upon and attempts made to smelt for copper in a small reverberatory furnace.

Considerable excavations have been made to the westward of the shaft, following the earthy layers, which seem to trend upward, the workings ultimately coming close to the surface.

Specimens from this mine were found to contain 0·10 and 0·20 per cent. of quicksilver.

In recent years attempts to work this mine have been made, and three of the ordinary Mexican clay-retort furnaces have been erected, as well as a small furnace for copper. A quantity of ore at the furnaces had been brought from two other mines, named locally Mina Real and Loma Real. An average sample of this ore was found to contain 0·3 per cent. of quicksilver.

Several other small mines are known to exist here, such as the Mina Quitaces, Mina Esparita, and Mina la Revolucion, all of which are of the same character. It is a peculiar feature of all these workings that they seem to have been started in the centre of what may be called mounds or small hills, and one is almost forced to the conclusion that these have been formed from deposits left by mineral springs, the character of which has changed at various times, the cinnabar having been deposited from solution.

Deposits in the State of Guerrero.

Running almost directly magnetic south of these deposits on the other side of the Balsas river, and lying to the south-east of Ajuchitlan, is a range of mountains in which are found a further series of deposits of quicksilver ore, amongst which are the Mina St. Gabriel, Mina Almadencillo, Mina Santa Eduwigis, and the Minas del Huamuchil, and here a shaft furnace, somewhat of the old Idria pattern, was erected some years back, with brick condensing chambers, the ore being made up into balls with clay before furnacing.

Samples of these balls were found and tested; they were found to contain 0·20 and 0·25 per cent. of quicksilver.

Table showing Tests of Various Samples of Ore.

Mine.	Quicksilver.
Tiro Quadrado	0·10 and 0·13 per cent.
Gachupina (upper layer)	0·33 „ 0·40 „
„ (lower layer)	nil
Guarache (upper layers)	0·20 „ 0·23 „
„ (bottom layers)	1·20 „ 1·30 „
Vahido (upper layer)	0·17 „ 0·23 „
„ (lower layer)	0·10 „ 0·17 „
Boca de la Judea	0·10 „ 0·17 „
Hedionda	0·10 „ 0·20 „
Loma Real	0·30
From old Idria Furnace Ore	0·20 „ 0·23 „

Huitzuco Mines.

About five hours' ride to the east of the town of Iguala, and at an elevation of 3450 feet above sea level, the celebrated mines of Huitzuco are found.

These mines are worked by a Mexican company, the head of which is Senor Don Romero Rubio. The establishment here is very extensive, and enjoys the protection of a detachment of "Rurales" (a sort of mounted *gendarmerie*), who kept watch and ward as if the place was liable to be attacked at any moment.

At the time of the author's visit the establishment was under the management of Don Antonio Mercenario, to whom he had letters of introduction, and who gave every facility for inspection of the mines and metallurgical establishments. The mines form a group, there being over 20 separate workings; most of these are found on the summit of small hills or mounds, and, in many cases, the ore extracted takes the form of a soft, sandy clay-like filling, known in many districts of Mexico as "panino," which is found in crevices, often radiating irregularly like a star from a central fissure or pipe, and of very varying width and depth.

The average "test" of such "panino" ores at Huitzuco is comparatively low, being only about 0.5 per cent. of quicksilver, For some years this class of ore only was worked, but at the mine now known under the name of La Cruz (originally opened near the crest of the hill on a series of radiating veins of "panino," upon which a large amount of work has been done), at a depth of about 40 metres, a vein of antimony ore was struck carrying quicksilver. This ore has been called "Livingstonite" (apparently isomorphous with stibnite; colour, lead-grey; lustre, bright when fresh; streak, red; the composition of the mineral being approximately $4SbS_3 + HgS + FeS_2$:—hardness, 2; sp. gr., 4·81. Analysis given in "Dana's Mineralogy":—S 29·08, Sb 53·12, Hg 14·00, Fe 3·50 = 99·70.)

In descending the La Cruz workings, it was clear that a natural shaft or geyser vent had been worked on, the deposits from which had gradually formed a mound, which, at the upper portion, was much creviced and shattered. This natural geyser vent was some 40 metres in depth to the point where the antimony vein was struck. The earthy deposits in the geyser shaft were then neglected, it being found that the antimony ore carried up to 10 or 12 per cent. of quicksilver.

For some years it was worked by old Mexican methods, following the vein at a somewhat steep angle, all the ore being carried upon the backs of young Indians, and the ventilation being of the very worst character. Under the direction of Mons. Lenglet the workings were carried on in a more scientific manner, and by putting in a mid-wall on the incline reasonably good ventilation was secured, and the workings continued on the shoot of ore to a depth of about 150 metres.

The vein or shoot varies very much in size and richness, but so far as it had then gone would average at least 1 metre thick and several metres wide. The face, at the time of the author's visit, showed a mass of ore over 2 metres thick and about 15 metres wide. No less than 56 men were at work on the face. The ore being easily drilled, each pair of men were driving four holes per day. The mine was comparatively dry, but what water there was got rid of by pumping it into a natural vent apparently leading into the main geyser opening, where it disappeared.

(*To be continued.*)

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QUICKSILVER MINING IN THE DISTRICT OF GUADALCAZAR, STATE OF SAN LUIS POTOSI, MEXICO.*

By HENRY F. COLLINS.

THE district now to be described is the most important, because the most productive, of all the quicksilver districts of Mexico; no exact statistics of the production are obtainable, but it may be very safely estimated at over 50,000 flasks since the beginning of the century, and very possibly 100,000 flasks would be nearer the truth. The existence of cinnabar in the district was known many centuries ago to the primitive Indians, whose tortuous, burrow-like workings, containing fragments of their pottery and tools, have been found in many places.

Topographically, the country is composed of a succession of nearly flat plains or table lands, bounded by ranges of hills whose general trend is more or less from N.W. to S.E., and which are composed for the most part of limestone, with here and there dykes and masses of porphyritic rocks, chiefly andesites. In some of the wider and more complex ranges a central core of granitic rocks is found. The range running in a north-westerly direction from the town of Guadalcazar is typical of these latter; the central core or boss is well developed, and is separated by a depression from the limestone hills on its flanks, the western series of these forming indeed, a parallel ridge but slightly interior in elevation to the central granitic mass. The town of Guadalcazar lies in a little basin at an altitude of about 6200 feet above sea level; the Trinidad quicksilver mines in the limestone ridge are about 500 feet higher, the highest point in the limestone being the Cerro de las Ardillas, reaching a height of some 7200 feet or 7300 feet, while the Cerro de San Cristobal, a craggy peak in the centre of the granitic intrusion, may be some 200 or 300 feet higher.

As regards the mineralisation of this range, it is noteworthy that the central granitic mass appears to contain no quicksilver, but it is traversed by great silver lodes, composed chiefly of pyrites accompanied by galena blende, chalcopyrite, stibnite, garnet, fluor, quartz, and barytes. These lodes near the surface are altered into iron gozzans containing pockets of rich ores; in some places composed of the so-called "carbonate" lead ores with more or less galena; elsewhere chiefly of oxidised copper ores rich in silver; while at still other points rich silver ores, chlorides as well as sulphides, are found almost free from lead or copper; showing that, as in other cases, a sort of segregative or selective action has been exercised by different parts of the lode filling on the circulating metalliferous solutions. These rich surface ores were largely worked about the middle of the last century, and gave enormous profits; the ore extracted by a single miner during nine years is said to have yielded the whole of the funds necessary for the constructon of the parish church at Guadalcazar, a lofty and spacious building which certainly must have cost at least $200,000 to erect. On getting down to water level, however, it was found that while the quantity of water to be dealt with was very great, the ores themselves were comparatively much poorer and quite refractory to milling processes, and, therefore, one by one, the mines were abandoned, since which they have only been "gophered" in a spasmodic and unsystematic fashion by parties of "buscones" or "gambucinos."

So far as the author is aware, no silver minerals have ever been found in the lateral limestone ridge which lies to the west of the principal granitic range just described; but it seems to be mineralised throughout to a variable extent by quicksilver minerals, and has suffered in places so much alteration as to be no longer recognisable as limestone at all. Its general strike would appear to be roughly N.W. and S.E., dipping gently to the S.W. Fossils are very rare in this limestone, in fact, with the exception of a few very indistinct shell-casts, the only fossil I have seen from the neighbourhood is a weathered coral.

As is usual in most limestone countries, caves are commonly met with, some of which are accessible as such, while others have fallen in, give rise to depressions of the ground above, extending in some cases over an area of many acres. These existing caves help us to understand the manner in which such enormous masses of fragmentary rock as those found in the Trinidad mines must have been formed.

It will be well to describe one by one the characters and modes of occurrence of the different rocks met with in the various mines along the limestone ridge.

Limestone. "*Piedra*" or "*Piedra azul.*"—This is hard, bluish in colour, finely crystalline in structure, and in composition slightly dolomitic; the insoluble residue left on treatment with dilute acid amounts generally to from 8 to 12 per cent., and is composed chiefly of clayey matter with some free silica. It is this clayey matter left by the limestone on its solution in acid waters and transformation into more or less crystalline gypsum, which, no doubt, has helped to form the great masses of fragmentary or breccia rock described below under the local names of "almendrilla" and "cuesco." Much of the limestone is blackish and hepatic ("piedra hedionda") in close proximity to the quicksilver deposits, but I am not aware that this characteristic has ever presented itself in workings at considerable distances from the known ore deposits, so that the organic matter, bitumen, or whatever it was, probably accompanied the metalliferous solutions.

"*Almendrilla*" (*i.e.*, almond rock) and "*Cuesco.*"—These two local names are given to a peculiar fragmentary rock found in large masses in the neighbourhood of the Trinidad mines, and the two varieties must be considered a single rock, for they pass into each other by insensible gradations. The typical "almendrilla" is a mass of small fragments of limestone, generally silicious, and roughly the size of an almond, which are sometimes loosely cemented by calcite and gypsum deposited from solution; oftener by a tough clayey substance which has evidently been derived principally from the solution of the original limestone, and in a few cases are so loosely aggregated that a single stroke of a pick will bring down several hundredweights of the stuff. The most common kind of "almendrilla," however, is that in which the fragments of silicious limestone are separated from each other by the tough clay referred to, and when this clay predominates the fragments of unaltered limestone becoming fewer and more rounded, the rock passes into a "cuesco;" the real typical "cuesco" being reached when the mass of clay and fragments had undergone additional consolidation and alteration, becoming sometimes "silicified," in which case it is often very hard, and sometimes "gypsified" (to coin a word which seems to be required), when, though soft, it is exceedingly tough. In either case, the true "cuesco," as distinguished from the "almendrilla," contains so much clay as to be practically impervious to the passage of solutions. One large mass of this rock in the Trinidad mines is over 200 metres long and at least 50 metres thick, as proved by exploration, while the depth is unknown.

"*Tosca.*"—This is a local name for an altered granitic rock met with in the form of dykes running through other rocks, especially limestone and gypsum, and into which the large masses of granite in the district are frequently changed for many hundreds of feet in the neighbourhood of a network of mineral veins. It resembles somewhat the decomposed granite worked in Cornwall* and elsewhere as a source of kaolin, except that it never contains so large a proportion of mica as the Cornish granite, and that it is almost always of a yellow colour from the presence of iron. The clay which forms so large a proportion of the fragmentary rock above described is, in some cases, partly derived from these masses of altered granite, since occasionally pieces of almost unaltered "tosca" are found in the "cuesco" at considerable depths and at long distances from the nearest known dyke; in these cases it is a noteworthy fact that the enclosed pieces of "tosca" are beautifully white—having been, no doubt, bleached by the acid solutions.

Gypsum. "*Yeso.*"—This is met with as large and distinctly bedded rock-masses, having the same strike and dip as the limestone beds, and clearly interstratified with them. Sometimes the gypsum is grey, compact, and as hard as Iceland spar, readily cleavable, parallel to the bedding into translucent plates of ⅛ inch to ¼ inch in thickness; more frequently it is of a soft granular texture and white colour, and in this case invariably contains more or less comparatively unaltered grey limestone, either as irregular angular fragments scattered throughout certain beds, or as hard and comparatively unaltered beds of silicious limestone interstratified with the others. No careful observer of the relations between the gypsum and the limestone in the underground workings can avoid the conclusion that all the beds were originally limestone, though it is not easy to understand why some portions should have been completely altered while others are not at all affected. The alteration was probably effected by water holding sulphuric acid in solution, which may have been produced by the action of water under high pressure on masses of sulphides at great depths. It is noteworthy that calcite in passing into gypsum (supposing none of the gypsum to be dissolved in the solutions) would swell more than one-half, and, therefore, the large empty spaces which exist cannot, even in part, owe their origin directly to the reaction. The empty spaces found to exist underground as caves as well as those now occupied by the large masses of fragmentary rocks, are undoubtedly due to the much greater solubility of calcium sulphate as compared with the carbonate, *especially in hot solutions.* The 8 to 12 per cent. of insoluble matter would be, of course, almost entirely left behind as regards that portion of the limestone removed in solution as sulphate, while as regards these portions remaining as beds of gypsum, it would be to a great extent eliminated from these through the operation of the well-known tendency of crystallising bodies to free themselves from impurities. Nearly the whole of the insoluble matter originally present in the limestone was, therefore, available to aid in filling up the empty spaces left by the solution of the limestone, together with more silicious portions of the latter and detached fragments of all sizes.

"*Panino*" or "*Panino Cenizo.*"—This is a peculiar substance, not occurring in large rock-masses, but in characteristic stringers or pipes, varying in thickness from an inch or two to several feet, or even yards. In appearance it is soft and sandy, resembling rammed wood-ashes, or, rather, bone-ash, somewhat moistened and gently pressed together with drying. The direction of the stringers is most erratic at first sight, but appears to be conected in some way with a complicated system of fissures (most, if not all, of which are, no doubt, faults); the ore-bodies are always closely connected with these stringers of "panino," so much so, that in following up one of them ore is certain to be met with sooner or later, though not necessarily in payable quantities.

* A paper read before the recent meeting of the Institution of Mining and Metallurgy.

* A good description of this rock, under the name of greisenyzite, was published by our President in 1878, in a monograph entitled "The Hensbarrow Granite District."—H. F. C.

(*To be Continued.*)

NOTES FROM ANDALUCIA.

PAPER ON THE CUPREOUS PYRITES DEPOSITS OF ANDALUCIA AND ALGARVE.

RETROSPECTIVE AND PROSPECTIVE.

Extracts and Notes from Mining Operations and Reports on these during the past 25 years.

By WILLIAM GUTHRIE BOWIE.

(*Continued from page* 1568.)

THE Tharsis Company at one time paid 4s. (20R.) per ton for export ore, and 2s. (10R.) per ton for that sent to local treatment, but very wisely, and with great foresight, succeeded in rearranging with the French company who took shares, thus saving completely in the most business and effective manner every difficulty looming in the future as to poor copper ores, cupreous schists, &c. What would have been their position to-day had this royalty been forced, and 1 per cent. copper obtained? This is evident in Santo Domingo, which still suffers from its royalty paid to the French company, besides its large nominal capital, while, fortunately, arrangements have been made to enable the export of the low-grade ores for sulphur, but, at present prices, the extraction of the poorer and harder bottom ores is not profitable. And, like many other mines, is just barely paying its way, while a just lowering of the royalty would, while enabling them to exploit more ore, be nothing more than justice, and decidedly a profit to both sides. Many mines have been abandoned with heavy losses, for this reason of royalty on the ton, that a better knowledge as now available would have saved, either in making the arrangements or leaving the whole thing severely alone if too exorbitant; and now far lower prices should be paid.

4th.—Royalty on the copper produced.

This method is applied where only local treatment is alone adopted, and can be made, or at all events ought to be made, on a sliding scale to answer the fluctuations of quality, as well as those so common now in the price of G.M.B. This method is not much introduced, while so far, in the existing cases, the prices paid per ton of copper produced when compared with those paid in the cases of purchase and royalty on the ton of ore, are more favourable; thus, with copper at £40, and a charge of £4 per ton of this, then 100 tons of ore yielding only 1 ton of copper gives a cost of 8d. per ton of ore. The average price is, however, about 1s. per ton of ore. In this case there is ample opportunity to treat everything containing copper, which is a great advantage in this class of ore, cupreous schist, and liquors. At the same time, where the ore, &c., gives higher results—as, for instance, 2 or even 3 tons of copper for every 100 tons of ore treated, then the cost per ton of ore is much greater, and would be 2s. to 3s. per ton respectively. Besides avoiding all questions as to what to extract, &c., there is a great advantage in this method, as no outlay of capital is necessary for acquirement as in purchase for cash or royalty on the ton of ore extracted, which takes some years to realise, and hence no risk in exploiting poor

copper ores (always unavoidable during extraction), and there is certainly in this plan some encouragement to try all new discoveries for economical treatment.

It is objected to in some cases, as in the event of rich copper ores, eventually high values per ton of ore is attained, while difficulties may arise as to the value of the other constituents of the ore as sulphur, silver, gold, &c., but, as a rule, it is understood, and should be clearly expressed that the decopperised ore is the property of the exploiter, as the price paid is supposed to represent the value of the ore in respect of everything it contains. In arranging such classes of contracts no future difficulties can arise if all these are thus included under copper, or specially estimated as to be, or not to be, paid.

5th.—Renting at a fixed sum.

This method has always been a failure from many reasons, has caused many questions, and such contracts have generally been broken, "gone through," &c., as either owner or exploiter have deemed convenient; as in mining, either side can easily find pretexts to do so, or at least make them. This is, however, employed in some cases where a speculator sees an opportunity to transfer at a higher price the contract to others. In the event of arranging on terms of this nature everything should be thoroughly detailed and secured, but in most cases this method of acquirement is best left alone.

6th.—By paid up shares or shares in profits.

This appears to be the fairest way of dealing, but may also be overdone, as too many of these may be given for a mine, and is more usually the case than otherwise. Assuming that a company or private party desires to acquire a mine of this description on such terms, there can now be little difficulty in arriving at just terms, if the estimations are guided by what the past exploitation and studies of these masses demonstrate as their true characteristics. There are cases also where the owners have spent large sums in investigation, &c., which have also to be taken into consideration, besides the greater certainty as to the quality and quantity of available ores these works may have opened up, and are thus going concerns. There is no limit to arrangements of this description as to the proportion of shares the owner should receive, as is evident in recent transactions, especially in gold mines, but here in these cupreous masses, or anywhere else where the nature of the lodes, veins, or masses are fully evident, no matter what may be the metal of value, whether copper, iron, manganese, silver, gold, &c., proper valuations can be made.

Thus, suppose the mine is estimated as to its value for ore, there requires to be made another as to its cost for development, and another for exploitation and treatment. In some instances the mine represents as one part, the capital employed to develop the property another part, and again this risk of capital another part, or in other words, the owner to have a third of the shares, estimated as three times the value of the mine, and the exploiter the remaining two-thirds, of which one-third is the working capital, equal to the value of mine, the other third being nominal, and represents his risks, interest, &c., of this capital utilised in the mine, and estimated at another amount equal to the value of the mine or capital employed. The owner risks his mine that has cost him only its discovery and concession; the exploiter risks his capital equal to the value of the mine, and hence this capital represents a mine, and here arises the additional value of another equal to the mine to represent this capital, and place both on equal terms. Even this arrangement is too high in respect of the owner in most cases, and there are many instances where the development expenses are greater in proportion to the estimated profits to be derived from the mine, hence the necessity to reduce the proportion to the owner at the same rate as development expenses increase, and increase the same to exploiter as his risks increase. There is no better plan than this, if due care and justice are observed, for the amount the owner realises will always depend upon the value of the ore and economy in exploitation and treatment, towards which last both sides have common interests, and can deal with poor ores, cupreous shists, and everything or any constituent of the ore for the benefit of each.

Here it is where Tharsis has been so successful, for had they not arranged by amalgamation with the French company they would have been burthened with an excessive royalty compared with former and present prices for copper and sulphur, and would have been completely trammelled in the exploitation of cupreous schist, &c., which is of so great importance to them now. To illustrate the cost per ton of ore by this system, supposing a nominal capital of £300, in 300 shares, 100 to owner, 100 as paid in cash by exploiter, and 100 to exploiter as representing his risk of cash, &c.

Then say charges of development, exploitation, and treatment amount to £35 per ton of copper produced, and this is sold at £40, leaving £5 profit, or £12 10s. on £100 sales, this would be equal to £4 3s. 4d. per cent. on the nominal capital, the owner draws £4 3s. 4d. per cent as his profit from the mine, the exploiter recovers £4 3s. 4d. per cent. of his expenditure, and £4 3s. 4d. per cent. as his profit on the employment of his capital. Now, if this is obtained from 100 tons of ore, each ton of this will have cost the exploiter 10d. per ton; if, however, 2 or 3 tons of copper are obtained at the same cost from the same amount of ore, then 1s. 8d. and 2s. 6d. per ton of ore in each particular case. This method results, as in the case of royalty on the ton of copper produced high per ton of rich ore paid to owner, but as the returns and profits also increase to the exploiter, and being joint participators in such good fortune, no one can grumble at this, while the slightest increase in value, or saving in exploitation and treatment, make a better show in the percentage of profits obtained on the nominal capital, while in a sufficiently reasonable time the owner recovers the value of his mine, the exploiter his capital, and a fair interest on this during its recovery; while the whole property, after all this has been realised, is still under one ownership, and can proceed with safety in face of increasing difficulties, and the residues, if properly treated, can be producers of profits—as, for instance, for sulphur, as in Santo Domingo. There is no doubt but that many mines now stopped would still be working with profits to all, if some such arrangements had been observed beforehand, as in the case of Tharsis already referred to.

The case of share in profits is similar to this of shares, and the same remarks apply to this, but greater care is necessary to detail all points to evitate any difficulties as mentioned in the cases of royalty on the ton of ore extracted or copper produced; and more so in the event of export of the ore itself, or this decopperised and exported for sulphur. There is no outlay of capital for purchase or royalty until returns are made, and this is important in these mines, seeing the years it takes to recover the copper from the ore extracted.

(To be continued.)

NEW HERIOT have declared a dividend of 25 per cent. to all shareholders registered December 27 (the warrants for this dividend may be expected at or about the end of February 1896).

Coupon No. 2 of the CELDENHUIS DEEP Five and-a-Half per Cent. Debentures will be paid at Messrs. Smith, Payne, and Smiths, 1, Lombard-street, E.C., on and after January 1.

MYSORE.—Mining operations for the fortnight ending December 9:—Rowe's shaft, 1460 feet level north of crosscut west. This level has been driven 12 feet, making a total distance driven of 321 feet 6 inches.—1460 feet level north of sump winze. The rise in the back of this level has been put up 12 feet 6 inches, making a total height of 113 feet 6 inches, and holed to the 1360 feet level north of sump winze.—1460 feet level south of sump winze, driving south from the bottom of the south winze, driven 17 feet, making a total distance driven of 275 feet.—1520 feet level north from the bottom of the above winze. This end has been driven 13 feet 6 inches, making a total distance of 44 feet 6 inches. The lode is 1 foot wide, assaying 5 dwts. 5 grains. Ribblesdale's shaft below the 1460 holed to this level on the 4th inst. 28 feet 6 inches of the level is now north of Ribblesdale's shaft.—1360 feet level south of crosscut. There are four stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 17 dwts. 18 grains.—1360 feet level north of crosscut. The lode in the stope in the back of this level is 2 feet wide, assaying 10 dwts.—1360 feet level north of sump winze. This level has been driven 13 feet, making a total distance driven of 335 feet. The lode is 3 feet wide, assaying 10 dwts. The total distance here includes 8 feet for the length of the 1460 rise.—1360 feet level south of sump winze. The rise in the back of this level has been put up 5 feet 6 inches, making a total height of 118 feet, and holed to the 1260 feet level north south of sump winze, and continued in the back of this level. There are two stopes in the back of this level, the average width of the lode being 6 feet, giving an average assay of 11 dwts. 12 grains. 1260 feet level north north-east. This level has been driven 21 feet, making a total distance driven of 963 feet 6 inches. On the 29th ultimo we struck the lode, and have crosscutted through 8 feet of quartz, the last samples from which give by assay 1 ounce 15 dwts. per ton. The rise in the back of this level south of the sump winze being a continuation of the 1360 rise has been put up 7 feet, the lode is 2 feet wide, assaying 13 dwts. 1 grain. There are seven stopes in this level, the average width of the lode being 3 feet 7 inches, giving an average assay of 13 dwts. 1 grain.—1260 feet level south. This level has been driven 2 feet, making a total distance driven of 258 feet 6 inches, there is nothing here to report. There are three stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 1 ounce 2 dwts. 11 grains.—1160 feet level north north-east. This level has been driven 9 feet, making a total distance of 721 feet 6 inches. We were through the lode on the 29th ult., and have started to drive north on it. The lode in the stope in the back of this level is 2 feet wide, assaying 1 oz. 10 dwts.—1150 feet level north of crosscut. This end has been driven 8 feet, making a total distance from the crosscut of 27 feet. The lode is 6 feet wide, assaying 2 ounces. The total distance here includes the level driven south from the bottom of the 1060 winze and the length of the winze.—1160 feet level south. There are five stopes in this level, the average width of the lode being 1 foot 7 inches, giving an average assay of 1 ounce 5 dwts. 2 grains.—North of the crosscut east. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce 10 dwts.—1060 feet level north of No. 2 crosscut. This level has been driven 29 feet 6 inches, making a total distance driven of 223 feet. The lode is 5 feet wide, assaying 2 ounces 10 dwts. The rise in the back of this level has been put up 7 feet 6 inches, making a total height of 27 feet 6 inches. The lode is 5 feet wide, assaying 1 ounce 15 dwts. The winze in the bottom of this level has been sunk 3 feet, making a total depth of 101 feet 6 inches. The sinking was suspended, and machine put to drive south from bottom of the winze to effect communication with the 1160 north of crosscut. Driven 11 feet, and communicated.—1060 feet level south of No. 2 crosscut. This level has been driven 18 feet, making a total distance driven of 158 feet. The lode is 1 foot 6 inches wide, assaying 1 ounce 10 dwts.—890 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 2 ounces.—890 feet level north of crosscut. The rise in the back of this level has been put up 12 feet 6 inches, making a total height of 36 feet. The lode is 5 feet wide, assaying 1 ounce 10 dwts. There are three stopes in the back of this level, the average width of the lode being 2 feet 8 inches, giving an average assay of 16 dwts. 16 grains.—780 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 17 dwts.—780 feet level north on new chute. Rise in back of old No. 5 stoped holed to 620 winze. There are six stopes in the back of this level, the average width of the lode being 4 feet 5 inches, giving an average assay of 15 dwts. 16 grains—620 feet level south. There are three stopes in the back of this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 7 dwts. 1 grain.—620 feet level north of crosscut. There are three stopes in this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 1 ounce 2 dwts. 1 grain.—620 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 17 dwts.—Crocker's shaft. This shaft has been sunk 19 feet, making a total depth of 143 feet below the 890.—236 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 18 dwts. 1 grain.—Gilbert's shaft. This shaft has been sunk 8 feet making a total depth of 116 feet 6 inches below the 650.—520 feet level north. There are three stopes in the back of this level, the average width of the lode being 1 foot 11 inches, giving an average assay of 11 dwts. 13 grains.—520 feet level south. The winze in the bottom of this level has been sunk 3 feet 6 inches, making a total depth of 21 feet. The lode is 1 foot 6 inches wide assaying 18 dwts. 6 grains. The lode in this stope in the back of this level is 1 foot 8 inches wide assaying 6 dwts. 12 grains.—430 feet level north. The lode in the stope in the bottom of this level is 2 feet 6 inches wide assaying 5 dwts. 5 grains.—360 feet level north. The lode in the stope in the bottom of this level is 1 foot 6 inches wide assaying 6 dwts. 12 grains.—290 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 10 dwts. 18 grains.—Tennant's shaft. 750 feet level north of crosscut west. This level has been driven 18 feet 6 inches, making a total distance driven of 222 feet 6 inches, the lode is 2 feet wide assaying 6 dwts. 12 grains.—360 feet level north, south of crosscut. The lode in the stope in the back of this level is 2 feet wide assaying 6 dwts. 12 grains.—290 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 10 dwts.—Schaw's shaft. 450 feet level north of crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot, giving an average assay of 16 dwts. 17 grains.—450 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 7 dwts. 19 grains.—320 feet level north. The lode in the stope in the back of this level is 3 feet wide, assaying 6 dwts. 12 grains.—McTaggart's shaft. This shaft has been sunk 2 feet 3 inches, making a total depth of 134 feet below the 550. The machine has also been engaged cutting out ground for a plat at the 650.—550 feet level north. This level has been driven 12 feet, making a total distance driven of 310 feet 2 inches. The lode is 1 foot wide, assaying 1 ounce. We have started a winze in the bottom of this level 226 feet north of the shaft. Sunk 3 feet 3 inches. The lode is 1 foot wide, assaying 8 dwts. 4 grains.—550 feet level south of crosscut west. This level has been driven 17 feet, making a total distance driven of 281 feet 3 inches. There is nothing here to report. The winze in the bottom of this level has been sunk 4 feet, making a total depth of 42 feet 6 inches, the lode is 2 feet 3 inches wide, assaying 10 dwts. There are two stopes in the back of this level, the average width of the lode being 1 foot 4 inches, giving an average assay of 8 dwts. 6 grains.—320 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 6 dwts. 19 grains.—Prospect shaft No. 2. This shaft has been sunk 2 feet 6 inches, making a total depth of 114 feet 6 inches. The sinking has been greatly hindered by water.—Ribblesdale's shaft, below 1460. Sunk 15 feet, making a total depth of 52 feet, the lode is 2 feet wide, assaying 2 dwts. 14 grains. Holed to the 1520 feet level north of winze south of sump winze on the 4th instant.—1460 rise. This has been put up 5 feet 6 inches, making a total height of 81 feet 6 inches.—Below 1060. Sunk 12 feet, making a total depth of 123 feet.—Crosscut west from the 1060. This has been driven 12 feet, making a total distance driven of 38 feet 6 inches.—Williams' shaft. Crosscut east from the 173. This end has been driven 4 feet 6 inches, making a total distance driven of 165 feet 6 inches. Health good.

NINE REEFS.—Superintendent's report for fortnight ending December 10: Vyvyan's shaft. No. 1 stope in the bottom of the 145 feet level north produces quartz from 6 to 7 inches wide, and assays 10 dwts. 9 grains of gold per ton. No. 2 stope in the bottom of the 145 feet level north produces quartz from 7 to 8 inches wide, and assays 14 dwts. 5 grains per ton. No. 1 stope in bottom of 145 feet level south produces quartz from 7 to 9 inches wide, and assays 1 ounce 1 dwt. 5 grains per ton. No. 1 stope in the back of 145 feet level south produces quartz from 6 to 8 inches wide, and assays 1 ounce 11 dwts. 8 grains per ton. No. 2 stope in the back of the 145 feet level south produces quartz from 5 to 7 inches wide, and assays 14 dwts. 3 grains per ton.—South shaft. The 300 feet level north has been driven 4 feet, total distance 21 feet. Quartz 2 inches wide, assay a trace of gold. The 300 feet level south has been driven 4 feet 6 inches, total distance 25 feet 6 inches. Quartz 3 inches wide, assay a trace of gold.—Oriental lode. Main shaft. We have started the pumping engine at this shaft, and lowered the water 10 feet. But I find we shall have to drop a donkey pump as the packing of the stuffing box is failing under water—Baynard's shaft. We have now completed the collar of this shaft, and the men are engaged in clearing the choke below.—Milling. Ten stamps are now running day and night. Health good.

CORRESPONDENCE.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.

BRITISH BROKEN HILL AND SULPHIDE ORE.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—The meeting of the British Broken Hill Proprietary Company (Limited), on Thursday last, was a very tame affair indeed. It might have been styled a directors' instead of a general meeting, seeing that nothing further was apparently elicited than a few somewhat ingenious remarks from the presiding genius, Mr. E. Russell Roberts, who wound up by suggesting a payment of £236 to a Mr. Woodhead for reorganising the company, which proposal was seconded by a Mr. H. Brandon, another director.

It is eminently suggestive, however, when a director points out that they have a mint of money in the shape of sulphide ore, which they could get at, and bring up to the surface when it was required for use, but, at the same moment, forgets to add, if they did get it up, they had no means of treating it, and, therefore, it would be useless spending any more of the company's money, till some method had been arrived at to utilise the dormant treasure.

Surely Mr. H. Brandon could have thrown some light upon this subject, seeing that he was the proposed Chairman of the Sulphide Ore Company that loomed so large in our local advertisements the other day. What has become of this company, the important processes they were to operate with, and the large industrial works they were about to create near Bristol and elsewhere? Has it, like other bubbles, been relegated to the limbo of forgotten things, or is it only asleep; or has some other process interfered with its successful flotation, and thereby necessitated the return of any capital that may have been accidentally contributed?

Surely Mr. Brandon, if he had anything important to communicate, could have enlightened the shareholders in some degree; but no! they were left entirely to imagine they had a good property, without, in point of fact, a grain of proof in it.

It is true the directors stated there was an increased demand for shares in the colony, but they did not add to what cause attributable. Is it not a fact that the demand in Melbourne arose from reports sent over from this side; that a process for the successful treatment of sulphide ores had been satisfactorily initiated, applying, of course, to the Broken Hill as well as the British Broken Hill, and is it not a fact that nothing of the kind has up to date been substantiated? The shares of both companies have been falling ever since, and, doubtless, will continue to fall, until something more tangible can be adduced in their favour, which, forsooth, takes time. The above company's shares are now selling at 11s. to 12s., after having risen to 16s. on the reports referred to, a price absolutely out of proportion to intrinsic value, seeing, also, that far more valuable properties, and under more enlightened management, can at this moment be purchased for, relatively speaking, as many pence. If the demand has been created in Australia, let the Australians keep them; men of business and capital on this side can exist without such treasures. PRO BONO PUBLICO.

December 23.

THE POLBERRO MEETING.

TO THE EDITOR OF "THE MINING JOURNAL."

DEAR SIR,—In your admirable report of the Polberro meeting I am reported as having said, in moving the resolution for the call, that it was the last occasion upon which I should have to propose such a motion, according to the best of my judgment. Even if this had been the case I should not have expressed myself so definitely, but, as the matter stands, there can be no doubt, as everybody knows, that a call will have to be made for stamping power, and it is only reasonable to expect that another net loss or two must inevitably arise. I think the shareholders are to be heartily congratulated upon this prospect, for it indicates much more than appears on the surface.—Yours truly, JOHN B. REYNOLDS.

37, *Walbrook, London, E.C., December* 23.

[In the stress of a prolonged transcription, made within a few hours of going to Press, the word "almost"—expressed in shorthand by a mere dash of the pen, but all-important in its modification of the context—was accidentally omitted.—ED. *M.J.*]

EXHIBITION OF WEARDALE MINERALS.—A couple of months ago the Weardale Railway, a branch of the Northern Railway System, was extended as far as Wear Head, one of the principal objects being the development of the mineral resources of Weardale. In connection with this extension an exhibition was opened at St. John's Chapel on December 23, with the object of bringing together a collection of the different mineral products of the Dale, and to demonstrate their variety and importance. This exhibition was principally conspicuous for a remarkably fine series of crystals and specimens of fluorspar, a mineral that occurs plentifully throughout the lead mines of the Dale, and which is now being exported from that district in considerable quantities. There was also a large collection of lead ore with some particularly fine specimens of potter ore. The iron mining industry was represented by a series of samples of the three kinds of ore found in the Dale—viz., brown ore, spathic ore, and steel grey ore, these being the ores from which the well-known Weardale pig-iron is manufactured. There were also several models of mine timbering, reflecting considerable credit on the men who had contributed this portion of the exhibit. A number of specimens of peat moss suitable for moss litter, which is now being so largely used in colliery stables, were also shown. It seems that this material is largely produced in Weardale, and is likely to become of considerable commercial importance.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

BETHANGA GOLD FIELDS.—A cablegram has been received from the manager, stating that the transfer of mine has been effected, and that last month's profits amounted to £1350.

BRILLIANT BLOCK.—The London office have received the following cablegram from the head office in Charters Towers:—"Have crushed during the month 2413 tons of quartz for 1508 ounces of gold. The profit on this run is £1200." The approximate value of this return is £5200.

BROKEN HILL PROPRIETARY:—For the week ending the 26th inst., 6671 tons of ore were treated, yielding 514 tons of lead, containing 138,038 ounces silver; also 1120 tons treated by amalgamating and leaching plants, producing 12,486 ounces silver. The following cable has been received from Melbourne: "Shares £2 14s. 6d., buyers."

BROWNHILL EXTENDED.—Cabling under date Dec. 16, the business manager reports as follows:—"Good progress is being made Brownhill extended; shaft has reached a depth of 61 feet; several leaders struck showing traces of gold; prospects are encouraging."

CENTRAL CHILI.—The directors have received the following from their manager at Panulcillo by cable:—"Result of work for month of November. Mines produced 1700 tons. Ores bought 1350 tons. Ores smelted 2450 tons. Regulus produced 297 tons. Net profit for the month, £950."

CRESCENT.—The London office have received the following telegram, dated December 24, from the mine: "Mill test on ores from Victory 18 tons 85 ounces."

GLENCAIRN MAIN REEF.—The London agents announce receipt of the following cable:—"An interim dividend of 12½ per cent. has been declared, payable to shareholders registered December 31. Transfer books will be closed from January 1 to 10, both dates inclusive."

GOLCONDA.—The following cablegram has been received from the manager of the mines, dated Cue, December 22:—"Have cleaned up after a run of 308 hours, crushed 270 tons, which yielded 455 ounces.—Driving north face. Have struck a pay streak of ore rich in gold."

GREAT BOULDER PROPRIETARY.—Cablegram received from the manager, Mr. Z. Lane:—"Crushed own battery 98 tons, yielding 705 ounces; public battery 112 tons, yielding 394 ounces; total gross yield 1099 ounces."

ISLE OF MAN.—The secretary has sold 100 tons Foxdale lead ore (chats) at £8 16s. 6d. per ton.

JACKSON GOLD FIELDS.—The directors have received the following cablegram, dated December 16, from their general manager at the mine:—"The body of ore is narrowing, the body of ore is getting poorer, not good enough to take out. Have stopped work. I recommend an outlay of $15,000. The shaft must be continued another 500 feet; will take six months. It is the best thing to do. Expect to find rich ore deeper. My letter of December 9 explains everything. Will begin to sink shaft immediately. Has this your approval? Number of tons of first class ore is 30, number of tons of second class ore is 40. Were sent (to the) mill. Shall commence crushing ore on Tuesday, December 17. I will telegraph the result."

KABOONGA.—The following cablegram has been received from the manager at the mines:—"The rise is now up 22 feet; have driven 32 feet in level since starting."

MOUNT MAGNET.—Extract from letter received from Mr. D. D. Rosewarne, dated November 15: I was out to the Magnet yesterday and good rich stone is being obtained. I am quite jubilant about that venture.

NERBUDDA COAL.—The sales of coal for the month of November are 1844 tons.

NEW PRIMROSE.—The London agents announce receipt of the following cable:—"An interim dividend of 25 per cent. has been declared, payable to shareholders registered at December 31. Transfer books will be closed from January 1 to 10, both dates inclusive."

NEW QUEEN.—The directors have received the following cablegram, dated Charters Towers, December 21, giving result of crushing for past fortnight:—"193 tons yielding 240 ounces gold. Have drawn on you for £1000. Have shipped per s.s. *Duke of Devonshire* 869 ounces. Timbering shaft. Eight days' delay in working caused by water giving much trouble. Sunk during fortnight 6 feet."

ROBINSON GOLD.—The following cable from the head office at Johannesburg has been received:—"Close books January 4 to 11. Declared a dividend at the rate of eight per cent., payable on receipt of London transfers.

ROYAL SHEBA.—The following cablegram has been received from the general manager:—"Have started crushing."

SIMMER AND JACK.—Last month's profit was £11,044.

SAN SALVADOR SPANISH IRON ORE.—The s.s. *John O. Scott* sailed from Santander on the 30th instant with a cargo of this company's ore for the Tyne.

SPRINGDALE.—The following cablegram has been received dated Denver, December 25:—"Nancy Lee 5 tons smelting ore realised $47 per ton of 2000 lbs., milling ore $7 per ton. The mine looks splendid.—Cripple Creek. The developments of the mine fully justifies the expectations which have been formed."

UNITED GOLD FIELDS OF MANICA.—Rezende Reef: The following cable has been received from Mr. Ferguson, dated Umtali, December 21:—"Pannings give fair results; assays must (will) be made immediately on arrival of all the plant; will telegraph again result of analysis." This is in answer to a cable from the board asking the manager's estimate of the assay value of the reef recently struck in three shafts.

WAIHI.—Return for the five weeks ending December 21 from 3840 tons of ore £14,310, and from 1700 tons of tailings £2057, total £16,367.

YERRAKONDA.—Fortnightly report of Captain M. Scantlebury, mine agent, dated December 11:—Berceford's shaft. The crosscut north-east of the 300 feet level north has been advanced 13 feet, now 24 feet from level. The rock we are cutting through is dark hornblende schist, very close and hard. South shaft. We have sunk during the fortnight 14 feet 6 inches, total depth 318 feet 6 inches from surface. The lode is 4 feet wide 3 feet 9 inches of which is solid quartz. Assay value 2½ dwts. of gold to the ton.—New Prospect shaft. The north end at the 90 feet level has been extended 3 feet 6 inches, now 6 feet 6 inches from shaft. The lode is 4 feet wide, composed of quartz and schist, which gives a trace of gold in the pan. The south end at the 90 feet level has been advanced 2 feet 9 inches, now 4 feet 9 inches from shaft. The lode is 3 feet wide, composed chiefly of quartz, assaying 2 dwts. of gold to the ton.—Prospecting on Lakkanahalli block. The trial shaft has been sunk 11 feet 6 inches, now 36 feet 6 inches from surface. We have a little quartz in the bottom of quartz which gives a show of gold in the pan. We shall follow this for a few feet.

SIDE LIGHTS ON THE LAW:

Legal Jottings on Cases in the Courts, and on Questions affecting Mining, Railway, Financial, Industrial, and allied Interests.

BY A BARRISTER.

THE legislation for the past year is not very bulky, and in this respect compares somewhat favourably with much of recent years. Still we find some of a useful character. Judging from the Shop Hours' Act of 1895, it would seem that the Act of 1892 has not become so well known or so strictly observed as its promoters would desire. That Act included within the term "shop" all shops, retail and wholesale, market stalls, and warehouses, wherever assistants are employed for hire, and it included licensed houses, whether public or refreshment houses. By the terms of that Act no young person under the age of 18 can be employed in or about a shop for more than 74 hours in one week, and in these hours any time in which they are engaged in any factory or workshop, as defined by the Factory and Workshops' Act, 1878, is included within the time computed. The employer is, therefore, rendered liable to a penalty, and now by the Act of this year a further penalty of 40s. is imposed upon any employer who fails to keep exhibited in his shop in a conspicuous place a notice referring to the provisions of the Act, and advertising the number of hours during which a young person may be employed there.

I HAVE already called attention to the extension of the Factory and Workshops' Act by the Act of this year, which comes into force on Wednesday next. By that Act laundries are for the first time brought within its purview. It contains new provisions as to the number of cubic feet of space, and as to overcrowding. There is a useful provision for the prevention of spreading infectious diseases, and there are further restrictions as to the employment of women, and a new provision as to notice of accidents. The provisions of the Factory Acts as to accidents will in future affect all docks, wharves, quays, and warehouses, and so far as relates to the process of loading or unloading, all machinery and plant used in that process there, as well as any premises on which machinery worked by steam, water, or other mechanical power is temporarily used for the purpose of the construction of a building, or any structural work in connection with a building.

THE Post Office Amendment Act, 1895, would suggest that the Postmaster-General was desirous of providing something for the Parish Council, and something more for himself. In future the Parish Council of a parish, or where there is no Parish Council, then the parish meeting is to have the privilege, where it is considered, for the benefit of the district, that any post or telegraph office should be established, or any additional postal or other facilities provided by the Postmaster-General, of undertaking to guarantee the Postmaster-General against loss sustained by their provision, and these expenses so incurred are to be charged in the same manner as other expenses under the Parish Councils' Act. This reminds one of the old schoolboy offer of a drink at your own expense. It may, however, be the means of infusing some life in quiet places, and of offering a theme for frequent discussion.

WHEN rumours of war are rife, the Volunteer Act of 1895 comes at a timely moment. It helps to give a realism to the idea that this useful movement, started within the recollection of many of us, is a part of the National army. In future, whenever our order for the embodiment of the militia is in force, any member of a volunteer corps may offer himself for actual military service, and not only this, if he can obtain a sufficient number of his corps to join him as, in the opinion of the Secretary of State, is sufficient to enable them to be separately organised, then they may be called out as a separate corps. There may be more in this than lies on the surface. One remembers well the alteration of regiments of the line from being known by numbers under which they had gained repute, and the complaint of the consequent loss of sentiment. This was, however, only overcome by the thought that the new regulation, making regiments known by the names of places to which they were attached, would further the sentiment which it seemed to attack. One can well imagine that the new Act will increase *esprit de corps*, as well as the swirit of rivalry between localities for reputation in military prowess.

THE Colonial Boundaries' Act, 1895, may or may not have something to do with the now world-renowned dispute in which President Cleveland now wishes he had never intermeddled. Where Her Majesty, by order in council or letters patent, has altered the boundaries of a colony, then those boundaries are to be the boundaries of the colony. There is only one proviso in the Act, and that is important—namely, that if the colony is a self-governing one its consent shall be required. These self-governing colonies are Canada, Newfoundland, New South Wales, Victoria, South Australia, Queensland, Western Australia, Tasmania, New Zealand, Cape of Good Hope, and Natal. This, therefore, grants power to the Queen, acting under the advice of her Government for the time being, to delimit in a constitutional manner her possessions, and recognises by Act of Parliament her prerogative.

THERE is one branch of the High Court where business has of late been brisk and improving, and that is the Divorce Court. An Act, which comes into force on the first day of the New Year, is designed to stay somewhat the flow of business to this centre. In future, every petty sessional, or police court, will have practically the jurisdiction of the Divorce Court to grant a judicial separation, not only on convictions for aggravated assaults, but where a husband has deserted his wife, or has been guilty of persistent cruelty to her, or has wilfully neglected to provide reasonable maintenance for her or her infant children, whom he is legally liable to maintain, if by such cruelty or neglect he has caused his wife to leave him, and to live separate and apart from him. In fact, the jurisdiction to grant separation thus given to a Court of Summary Jurisdiction would seem to be greater than that already possessed by the President of the Divorce Court. I am not aware that up to the present the Divorce Court has claimed the power or the right to grant to the wife a judicial separation where all that she complains of is neglect on the part of her husband to provide reasonable maintenance for her infant children. It is not likely that this Act would be much resorted to if it stopped there, but the same Court, as is only right if the Act is desirable, has the power to order when granting the separation that the husband shall make due provision not only for the legal custody of the children of the marriage under 16, and that the husband shall pay to his wife such sum as may be reasonable, not exceeding £2 per week, and also—what has been said to be the most important thing in a legal case—the costs she has incurred. The Legislature, no doubt, contemplating that amongst the great unpaid may be found some who, at first, may squirm at having to excuse jurisdiction of this character, has provided that magistrates, if they consider the question, would be more conveniently dealt with by the High Court, may refuse to make an order under the Act, and in such case no appeal lies from that decision; but there is a proviso to this—the applicant may still go to any Judge of the High Court, and he may, should he think it fit and proper, order the magistrate to re-hear and determine the case. Where a magistrate has made an order under the Act an appeal is given to the husband to the Divorce Division of the High Court.

IT may be taken to be clearly established that income-tax is payable on the net profits gained in any trade wholly or partially carried on in the United Kingdom; but if the trade is exclusively carried on outside the United Kingdom, then any person, whether a subject of Her Majesty or not, if resident here, is liable to pay income-tax on whatever he receives in this country from such trade. To obtain exemption, however, from paying on the whole profits the burden of proving that the business is wholly carried on abroad lies upon the person who desires to avail himself of the exemption.

QUEENSLAND SMELTING COMPANY (LIMITED).

The seventh ordinary general meeting of shareholders in the Queensland Smelting Company (Limited) was held on Monday at Winchester House.—Mr. Reginald B. B. Clayton, who presided, in moving the adoption of the report and accounts, said in explanation of the debit carried to profit and loss for this year, that the prices ruling for silver in July, 1894, were lower than the prices paid for the same ore previous to July, and consequently the company had suffered loss on the realisation of shipments afloat. This was evidently the case, as the realisation of the ore purchased July, 1894, with the stock on hand, worked out at £71,000, and the sales, &c., at over £84,000, leaving some £13,000 gross profit on the transaction. Recent advices had been received from the managing director to the effect that he had made a good profit locally of the soft lead from the refining works, thereby saving the freight and costs on the heavy lead shipments. In a letter to hand that day he stated:—"The works are being fully employed. We have now a good accumulation of bullion—about £10,000—the refining of which was commenced yesterday. The ore supply is coming in steadily, and altogether I consider the situation greatly improved."—The Chairman, in conclusion, remarked that there were proposals afoot for putting the company on a remodelled basis, in order to enable them to put certain items to capital account, which would make it possible to pay a dividend without wiping out the amount standing to debit of profit and loss.

THE HALL MINES (LIMITED).

The third ordinary general meeting was held at the offices of the company on Tuesday, the 17th inst., and in the absence of Sir Joseph W. Trutch, the Chairman of the company (who is at present at the mine), Robert Day, Esq., presided.—The Chairman, in moving the adoption of the report and balance-sheets, stated that the results of diamond-drill operations during the past year had proved the existence of about 130,000 tons of ore reserves, besides 8000 tons of ore on the dump, the net estimated value of which was £29,468. This ore was being rapidly transported to the smelting works at Nelson by an aerial tramway erected by the company. These smelting works were nearly finished, and smelting furnaces expected to be started about December 31.—The report was duly adopted, and after a vote of thanks to the Chairman and Sir Joseph W. Trutch, the proceedings terminated.—[*Communicated*].

"INDIAN AND EASTERN ENGINEERING DIARY AND REFERENCE BOOK."—We beg to acknowledge receipt of a copy of this admirable diary for 1896. In previous reviews of this work we have said so much in its praise that we can hardly invent fresh phrases to again express our appreciation of it. By this time the contents of it are very widely known, and, therefore, it is an almost unnecessary task to remind readers of that with which they are already acquainted. It contains, as usual, a variety of commercial and statistical information of our Eastern Empire, and gives the foreign equivalents for English weights, measures, and values.—information which may be found invaluable to those having dealings with the native population. We once more congratulate the editors upon the style and form of the diary. We cannot say that it is a conspicuous improvement upon previous issues, because that were a most difficult and almost impossible task. When we say that it compares in every respect with its predecessors, we speak of it in the highest terms of praise.

DIARY FOR NEXT WEEK.

Monday, December 30.

Brownhill Proprietary Gold Mines, Winchester House, 11.
Eastern Concessions, Winchester House, 11.
Afrikander Gold Mining, Cannon-street Hotel, 12.
California Milling and Mining, Cannon-street Hotel, 12.
Central Montrose Estate & Gold Min., Winchester Ho., 12.
Lomagunda Development, Winchester House, 12.
M. B. Foster, 242, Marylebone-road, 12.
Sutherland Reef, Winchester House, 12.
United African Lands, Cannon-street Hotel, 12.
Australian Broken Hill Consols, Winchester House, 12.30.
Great Talunga Gold Mine, Winchester House, 1.45.
Caylloma Silver Mines, Cannon-street Hotel, 2.
Coetzeestroom Estate and Gold Mining, Winchester Ho., 2.
Flagstaff, Winchester House, 2.
New Colorado Silver Mining, Cannon-street Hotel, 2.
Rice Hamilton Exploration Syndicate, Winchester Ho., 2.
West Australian Exploring and Finance Corporation, Winchester House, 2.30.
Bechuanaland Trading Association, Cannon-st. Hotel, 3.
Ouro Preto Gold Mines of Brazil, 6, Queen-street-place, 3.

Tuesday, December 31.

Lion (Mozambique) Gold, Cannon-street Hotel, 11.30.
Australian Gold Recovery, Cannon-street Hotel, 12.
Fingall Reefs Extended, Winchester House, 12.
Gold Fields of Mozambique, Cannon-street Hotel, 12.
Kempinkote Gold Mining, Cannon-street Hotel, 12.
Montrose Gold Mining and Exploration, Winchester Ho., 12.
South Australian Petroleum Fields, Winchester House, 12.
Vaal River Diamond, Winchester House, 12.
West Australian Prospectors, 11, Poultry, 1.15.
Blackett's Claim Gold Mining, Winchester House, 2.
Frontino and Bolivia Mining, Winchester House, 2.
Anglo-Saxon Gold Mining, Cannon-street Hotel, 2.30.
Colar Central Gold, Cannon-street Hotel, 2.30.
Roódepoort Deep Level Gold Mining, Winchester Ho., 2.30.
Torva Exploring Syndicate, Cannon-street Hotel, 2.30.
Tati Blue Jacket Syndicate, Winchester House, 3.

Thursday, January 2.

Hammond's Matabele Gold Mines, Cannon-st. Hotel, 12.
Omnium Gold Mining Association, Winchester House, 12.30.

Friday, January 3.

Selukwe Consolidated, Cannon-street Hotel, 12.
Barberton Reefs, Winchester House, 2.30.
Idaho Exploring, Winchester House, 2.30.

Saturday, January 4.

Auriferous Properties, Winchester House, 12.

C. PASS & SON (Limited), BRISTOL,
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LEAD ASHES, SULPHATE OF LEAD, LEAD SLAGS,
ANTIMONIAL LEAD, COPPER MATTE, TIN ASHES, &c.
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TIN, COPPER, LEAD, AND ANTIMONY.

HENRY WIGGIN & CO. (Limited),
NICKEL AND COBALT REFINERS,
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BIRMINGHAM.

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SHIPPING.

CASTLE LINE.—CAPE & NATAL MAILS.

WEEKLY SERVICE FOR THE GOLD FIELDS OF SOUTH AFRICA.—The CASTLE COMPANY'S STEAMERS leave LONDON (East India Dock Basin, Blackwall) every FRIDAY, and sail from SOUTHAMPTON every SATURDAY.

Steamers.	London.	Southampton.
†Warwick Castle (via Canaries) ...	Jan. 3	Jan. 4
Dunottar Castle (via Madeira) ...	Jan. 10	Jan. 11
Pembroke Castle (via Canaries) ...	Jan. 17	Jan. 18
Hawarden Castle (via Madeira) ...	Jan. 24	Jan. 25

† Also for Madagascar and Mauritius.
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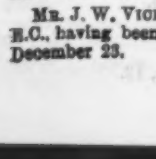

FOR SOUTH AFRICAN GOLD FIELDS.—WEEKLY SERVICE.—CAPE OF GOOD HOPE, NATAL, and EAST AFRICAN ROYAL MAIL STEAMERS.—The UNION STEAMSHIP COMPANY'S ROYAL MAIL and INTERMEDIATE STEAMERS will Sail as follows for SOUTH and EAST AFRICA, calling at MADEIRA and TENERIFFE.

Steamers.	Antwerp.	Rotterdam.	Hamburg.	Southampton
†Mexican	—	—	—	Jan. 4
‡Gaul (twin screw)	Dec. 29	—	Jan. 4	Jan. 11
†Norman	—	—	—	Jan. 18
§Trojan...	—	Jan. 12	Jan. 18	Jan. 25

† Calling at Madeira.
‡ Via Teneriffe. § Via St. Helena.
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It is next to *The Times* and *The Daily Telegraph*, each of which it exceeds in extent of Advertising during several months of the year. It is unrivalled among Daily Papers for the completeness of its Reports of the Mining and Metal Markets, besides Commercial and General News for all classes of the community.
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COMPANIES AND LEGAL ANNOUNCEMENTS.

"." Advertisements are inserted in this column at the rate of 9d. per line with a minimum charge of 7s. 6d.

GLENCAIRN MAIN REEF GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that an Interim Dividend of 12½ per cent. has been declared by this Company to Shareholders registered on the 31st December, 1895.
Transfer Books will be closed from the 1st to 10th January, 1896, both dates inclusive.
By Order,
T. HONEY,
Secretary to London Agents.
7, Lothbury, E.C.,
27th December, 1895.

NEW PRIMROSE GOLD MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that an Interim Dividend of 25 per cent. has been declared by this Company, payable to Shareholders registered on the 31st December, 1895.
Transfer Books will be closed from the 1st to 10th January, 1896, both dates inclusive.
By Order,
T. HONEY,
Secretary to London Agents.
7, Lothbury, E.C.,
27th December, 1895.

HIS MAJESTY KING CARLOS, of Portugal, has conferred the title of Viscount on Mr. W. R. Horncastle, C.C., of Cheapside and Taymouth House, Hackney.

MR. J. W. VICKERS' general advertising offices, 5, Nicholas-lane, E.C., having been rebuilt, business was resumed there on Monday, December 23.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates
ALL OVER THE WORLD,
Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical Engineers, Manufacturers, &c., &c.
THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan.
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TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.
TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage, is for:—
The United Kingdom, £1 4s.;
Abroad, £1 8s.:
payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.
TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s. per column, or £20 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 3d. per line with a Minimum charge of 4s.
Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.
"." ADVERTISEMENTS (which should in all cases be sent direct to THE BUSINESS MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 16, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C. until 9 p.m.

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LONDON: DECEMBER 28, 1895.

PROGRESS IN NEW ZEALAND GOLD MINING.

THESE are certainly days of what may be termed a general mining revival, and more than one promising gold field will, if ever its history comes to be written, date back to the present year a renewed activity, under more auspicious conditions of patronage, enterprise, and public favour. West Australia being for a time left out of consideration, perhaps this fact may find its most pointed illustration in the New Zealand gold field, which is now opening up with a speed wholly unimagined in more sober and deliberate days. A combination of favourable influences, joined to solid and substantial worth in the field itself, have imparted so vigorous an impulsion to its prosperity that the briefest glance is sufficient to discover that the field is some considerable way further forward than was the case even at a comparatively recent period. It is in the North Island, rather than elsewhere—and especially in the districts extended to the north by Coromandel and the Thames—that this greater activity has been apparent. Nor has it been confined to the colony alone. Represented, as it is, in London by such successful and well-known enterprises as the Hauraki and Waihi, and offering brilliant possibilities, attested by actual results, it was only to be expected that the revival in the colony should be accompanied by a corresponding appreciation of New Zealand shares in the London market. Crowds of English investors and speculators, with that confidence which has been the rule rather than the exception during the past year, have swarmed into these companies, and, to all appearances, it does not seem that, so far as they have conducted their operations with prudence and judgment, they have any reason to regret having done so. Month by month reports come over to England showing that no abatement whatever has taken place in the local interests recently manifested in the mining operations. The opinion in the locality, indeed, appears to hold that never was the industry more amply secured as regards its permanence than at present. Properties hitherto almost or wholly unknown have come rapidly to the front, and districts that were never suspected of containing gold—at least to any payable extent—are in a fair way to become not only successful, but even famous. One good instance of rapidly-acquired fame is afforded by the Tararu Creek property, which has acquired a celebrity in London, which, according to pronouncements from reliable sources, is grounded on substantial merit, not only in the particular mine associated in name with the Creek, but in the district itself, which appears to be among the most promising in New Zealand. Unless our correspondents in the locality have been wrong in their judgments, the Creek will maintain and increase its present reputation, and justify the considerable hopes entertained of it.

Gold mining activity in the North Island of New Zealand is, in truth, growing apace. Much more solid and enduring work in this direction is being done than ever meets the most observant and penetrating eye directed from outside. An illustration may, perhaps, be given. A gold field that has been effectually brought into condition for systematic working, and which, like many another field opening up without any pretentious beating of the drum or blowing of the directorial trumpet, promises well for the future, is that of Te Puke, situated in a well-wooded and abundantly-watered district, some 13 miles from the considerable town of Tauranga. For years past the Te Puke Syndicate have been persistently but quietly at work prospecting the ground, and the results have at once justified their attention, and ensured its continuance. Mr. W. D. TILSLEY, the well-known prospector of the Komata reef, who has been assisting the syndicate, discovered loose gold in the Creek, and subsequently succeeded in tracing its origin to a 5 feet reef running through a block of 500 acres, purchased by Mr. MALCOLM FLEMING, and adjoining the new gold field boundary. The reef in question has been driven 15 feet, and has yielded excellent prospects, but the auriferous content of the block goes much further, for no fewer than six additional reefs have been discovered, one of them stated to be 30 feet wide. Mr. FLEMING has acquired water rights on a neighbouring stream, the name of which is sufficiently extended and musical to show that the country is possessed as well of philological as of mineralogical richness. In addition to a water power equal to working several hundred stamps from the Quarapharpho stream, Mr. FLEMING has secured a convenient battery site. A general agreement among experts as to the worth of the Te Puke district from the mining point of view hardly leaves the question open. Mr. G. M. MCGRUER, of the Crown Mine, has been very favourably struck by the stone itself, as also by the congenial nature of the sandstone in which it is imbedded. In general characteristics, the reefs laid bare by Mr FLEMING are blue and white in colour, vary in width from 20 feet to 30 feet, and, striking north-west by south-east, have for the most part a westerly dip. Present operations are mostly confined to developing a 5 feet reef of rubbly brown quartz, encased in good, well-defined walls. Facilities for working other than the kindly nature of the country are said to abound; water and timber are obtainable in abundance, and the conformation of the spurs and ranges in the neighbourhood of Te Puke is all that could be wished. "Good prospects of rough, coarse gold," as we are informed upon authority for which we can vouch, "have also been obtained in the direction of Otnae Wainuku, on the Ohaniti river, and about 6 miles from Tauranga. Some promising reefs have also been found here." Isolated instances these certainly are not. Hardly, perhaps, to the same extent, but quite in the same manner, a crowd of mines that, until recently, had been relegated to the cold shade of popular indifference, have suddenly come into a brighter fame that seems destined to last. All this points in no uncertain way to a splendid career for New Zealand gold mining. Not that we look forward to a time when the New Zealand industry will give tone and direction to the London Stock Market, or when Coromandel and the Thames will, in point of production, take their places in the same category with the Witwatersrand and some parts of Siberia, while at the some time they exert a commanding influence upon the cast of home industrial opinion. But there are indications before us, both in the ordinary currents of journalistic opinion and in certain records from special sources, which justify the prediction with considerable confidence of a future at once solid and brilliant for gold mining in New Zealand.

MINING IN CALIFORNIA.

WE have received from the California State Mining Bureau a carefully-compiled and well-arranged sheet, showing, in a tabular form, the mineral output of that State for the year 1894. There is, of course, nothing startling nor sensational in these figures; in fact, we have now known them for so long from unofficial sources that the bulletin in question merely sets the seal of official approbation upon the figures that anyone interested in statistics must have had before him for the last six months or more. Nevertheless, we are far from wishing in any way to undervalue the importance of the present table; we only wish that all mineral-producing States and countries all the world over would follow so excellent an example. If authoritative statements of the amounts of the mineral output from the various mining regions of the world could be obtained within 12 months—and this one is just within that period—the lot of the mineral statistician would be a far happier one. In this country, although we grow like conscientious Britons at the

shortcomings of our Department of Mineral Statistics, we are, nevertheless, accustomed to get some kind of return within the first three months after the close of the year, but how many of the nations of the Continent of Europe have yet issued their mineral statistics for 1894? Nay, how many are there that have still to issue theirs for 1893?

Moreover, it must be remembered that this Californian table of statistics is a very detailed one, the amount and value of each mineral produced being shown for each county in the State Gold, we need hardly say, overshadows all the others. The United States produced last year close on 40 million dollars' worth of gold, while California, as we see from this bulletin, produced gold to the value of $13,923,282, or just over one-third of the total. California is represented on this table by 50 counties, of which 31 are gold producers; out of these there are only the five following whose output exceeded a million dollars:—

Calaveras	$2,119,365
Placer..	1,851,214
Nevada	1,830,154
Amador	1,331,916
Trinity	1,012,665

As these five produced just over $8,000,000 between them, these figures afford substantial proof of the wide distribution of the precious metal throughout the State.

The total value of all the mineral productions of California is put down at $20,203,294, so that the gold output forms just about wo-thirds of the grand total. The item next in importance to the gold is quicksilver, the output of which is given at 30,416 flasks, valued at $934,000. This metal is produced in four counties, one of which (San Benito) is only responsible for some 1000 flasks. It is interesting to note that not one of these mercury-producing counties figures in the list of gold producers. In connection with this output it will be remembered that the price of quicksilver last year was unusually low, the average being only about $31 per flask. Whether this result is due to a diminished demand, first silver ores and now gold ores, being increasingly treated by metallurgical wet methods, or by smelting processes, whilst amalgamation is being to some extent displaced by these newer methods, or whether the falling off in price had any other temporary reasons, is difficult to determine. It is interesting to note that California produced 100 ounces of platinum in 1894, the whole of which came from Siskiyou County. Including all the above, as well as silver to the value of $297,331 (one-half of which came from San Bernandino County), the total value of the metallic minerals of California is returned at $15,323,331. Miscellaneous non-metallic minerals, such as salt, borax, coal, magnesite, &c., figure at 1½ million dollars, hydrocarbons (asphalt, petroleum, and natural gas) at 1½ millions, and structural materials (clays, cement, building stone, &c.) at 2 millions. The above figures will serve to give a good general idea of the enormous mineral wealth of this State and its distribution, sufficient, we take it, for the needs of the general reader; for such as require fuller details we need only add that we are requested to say that any citizen of the State of California may obtain a copy of this bulletin free on application for it by sending 2 cents for postage to the State Mineralogist, and that from our own experience of the invariable courtesy of the various Governmental departments of the United States, we have no doubt that anyone in this country, interested in the mineral wealth of California, would be sure to receive a copy upon the same liberal terms.

GOLD MINING IN INDIA.

SOME share in the recent speculation in mining scrip has certainly fallen to the lot of the Indian gold mines, and, on the whole, these stocks have been wonderfully firm during recent bad times. Indian gold mining has not the marvellous possibilities which are possessed by the auriferous industry of South Africa and Australasia, and as compared with the "banket" formation the reefs are generally of a "patchy" character. Nevertheless, there is plenty of room for development in this resource of our Indian Empire, and no doubt we shall see it appreciated by capitalists before long. It is to be remembered that there are "deep levels" to the Indian reefs as well as to those of the Witwatersand, and there is plenty of data for believing that they will prove, in comparison with the surface quality of the ore, as profitable, as there is every ground to hope the latter will do. If corresponding attention were given to the Indian gold districts, if capital were as readily forthcoming, and if the very best expert assistance were as freely engaged, we might hope to see a progress in the output of that part of the world which would bear some comparison with that of South Africa and Westralia. The recent reports from the Mysore Mine are most encouraging as to the prospects afforded in the deep level development, to which we have referred. It should not be forgotten that the total production of gold in India in 1894—£797,000—was an increase upon 1893 of £35,000, and upon 1892 of over £130,000. This, after all, is an encouraging rate of progress, and it should certainly lead to more interest in Indian gold mines amongst capitalists and mining men generally. At present prices the dividend-paying gold mines of India are investments which compare favourably with the outcrop mines of the Rand at the low figures at which they have been left by the "slump," and we cannot but believe that many of the properties at present unworked, or worked without profit, will before long be returning good dividends. Excellent results have of late been obtained from outside mines which only a little while ago seemed in a hopeless position. Besides deep levels, India has the resource of the treatment of the refractory ores. Comparatively little has been done in this direction up to the present, and the opportunities offered are such as should tempt the clever chemists and metallurgists who have achieved the salvation of the auriferous industry in other countries.

NOTES AND COMMENTS.

WE devote one of our editorials this week to the consideration of the position, progress, and possibilities of the gold mining industry in New Zealand, a country which, as everyone is aware, has recently come prominently to the front. Of course, it is not regarded with the favour which has been bestowed upon Western Australia, but there is every likelihood that in the near future it will become almost as attractive. What we want, of course, are a few more companies as successful as the Waihi and Harauki, and it is not altogether improbable that several with prospects second only to these two concerns will be placed upon the London market. A company respecting which, from private sources, we have received some favourable information, is Preece's Point Proprietary, the statutory meeting of which was held on Saturday last. Some remarkably favourable reports have been made upon the property, and assays taken at several points have yielded a very high average indeed. We do not wish to say, of course, that the prosperity of this company is assured, and that it will eventually turn out a brilliant success, but what we do say is, that it is an excellent speculation, and is well worth the enterprise of the British investor. It is a company of which much may be expected, but there is no telling, of course, at the present moment, whether such an expectation is likely to be realised. Captain Argall reports that the bearing of most of the reefs is in the direction of the Huaraki property, therefore, he says:—"The same reef traverses both places, and I can clearly state that several of the reefs are running parallel to the main Hauraki true fissure vein." Upon such a statement as this much hopefulness may be based.

PERHAPS the most satisfactory feature in the statement presented from the chair at the annual meeting of shareholders in the Transvaal Gold Exploration and Land Company was the reference to the economies effected—at a certain outlay of capital indeed, but to no disproportionate extent—in the working costs. "You will notice," said the Chairman summing effectively into one sentence the four chief particulars of retrenchment, "a reduction in mining of 3s. per ton, in transport of 4s. 3d., in pan treatment of 3s., and in cyanide treatment of 5s. 10d." Against this, indeed, there has to be set an increase of 6d. per ton in the battery crushing costs, and a certain advance in the mine charges, due for the most part to an increase in the manager's salary and to disbursements for travelling; but in the former case the increase is so small as to remove all apprehension of permanent loss in that direction, and the larger outlay in salaries at the mines follows naturally enough upon the necessity to retain an efficient staff in the company's service. In the broader paths of general policy the company's affairs seem progressing satisfactorily both for directors and shareholders. Like those of the old Venetian merchant, the company's ventures are not crowded together "in one bottom," but comprise a number of carefully selected interests in different properties, and even calculating upon the bare law of chances—leaving aside for the moment all considerations of special selection—the company's stake in the Transvaal may be regarded as likely to turn out profitably. The prospect of placing the company "upon a remodelled basis," foreshadowed by the Chairman, is not altogether a pleasant thing, but to all appearances the step is absolutely necessary if dividends are to be paid within a not unreasonably prolonged future.

FROM the first the Venezuelan question was political rather than industrial in its nature, and the celebrated and unique Cleveland message has with one coup lifted it triumphantly into the category of questions not only national but even world-wide in their repute. Since, however, the territories in dispute are pronounced by Lord Salisbury (the precise phrasing for the moment escapes us) to be of great mineral value, there is no need to insist further that the matter is industrial first, and political afterwards. The land in question contains several mines that are already in working—to say nothing about the unknown gold potentialities latent in the territories hitherto unexplored, and upon the issue to the question now pending hinges the alternative of working under a weak and unstable Republic, or under Imperial protection. The representatives of the mines now operating on the allegedly dubious border line have been assured by the Venezuelan officials that, whatever the upshot of the dispute, they and their employés will be permitted to work in peace, but the grounds of the promise are admittedly vague, and may be supposed not to protect the mining staff from enforced military service in time of revolution, and most certainly will have no ameliorative influences upon the demands of the Republican taxpayer. Rumours are afloat to the effect that the flutterings and screeching of the American Eagle over the matter are not altogether unconnected with certain territorial concessions conceded by the Venezuelan Government to Americans, in exchange for that mighty influence of moral and social regeneration—the dollar. It would certainly be a bitter pill for the estimable inhabitants of that glorious and progressive Republic of the West if, as the phrase goes, they were sold instead of the land.

FROM the elaborate budget of reports before us from the office of the Mount Lyell Mining and Railway Company (Limited) it would appear that the year's operations have been instrumental in the discovery of several large and valuable ore bodies, such as only require to be attacked to lead to highly profitable results. The main body of pyrites has been found to continue further in a southerly direction than was before anticipated, while, at the same time, a large reserve of pyrites, assaying well in copper, gold, and silver, has been laid open. In addition to these developments the year's discoveries have been enriched by the cutting of a large body of oxidised ore, rich in gold and silver, by means of a prospecting shaft sunk about 100 feet west of the old open cut. The management are at present mainly occupied in setting their house in order, both from the financial point of view and in regard to the plant at the reduction works. The board, having failed to get a good offer for underwriting the debentures in London turned to the colony itself, and were successful in getting the issue underwritten there on satisfactory terms. This fact seems to argue favourably enough for the mine's reputation in the colony itself, where its resources may be supposed to be more accurately known than in London, where judgments are necessarily founded upon reports from the other side. At the reduction works operations have been carried on during the year with great activity. The sites for the various buildings comprised in the department have been cleared and graded, and the construction of the subsidiary tracks into the works have been completed. Generally speaking, the year's record is one of exceptional activity in the direction of improving the stability of the company's position, and as such it should bear its fruits in the future.

FAR from mending, political affairs in the Transvaal seem to be coming into a more hopeless deadlock than ever. How the situation will ultimately resolve itself—whether by bloodshed or more peaceful ways—cannot possibly be said. Only one thing is certain; the present iniquitous and exasperating situation cannot be indefinitely prolonged. What is to be said of the internal condition of a State which cannot retain honest men in its civil service, where the majority of large capitalists are absolutely without legislative representation, and where political incompetency is nurtured with almost horticultural tenderness? Almost the totality of British interest in Transvaal territories is comprised in the mining industry, and it is upon pursuers of that peaceful and useful calling that the injustice and privation of the *status quo* most heavily press. About nine-tenths of the whole revenues of the State are contributed by the mining population, and in return they get absolutely none of the benefits such as it is the office of a Government to supply. They are without means of educating their children, no adequate police protection is afforded to them, and as to the Governmental organisation of the industry itself, it is either non-existent or so painfully and hopelessly inoperative as to serve no useful purpose. Thus, in addition to their enforced payments to the State, English capitalists and miners are providing for themselves at their own cost the necessary protection from outrage and the means of educating their families.

KRUGER, so far as he has been at all able to intelligently apprehend the matter, has, with charming simplicity, reversed the cardinal canon of political philosophy. To his slow-moving and yet ponderously ambitious mind the framework of State organisation exists not for the benefit of the people, but to the end that certain dull and reactionary bigots may amuse themselves by playing at Government, and enjoy fat pensions as a State recompense for indulging the pastime. By the logical necessities of his "will to life" President Kruger has been playing into the hands of men of his own perverse type, and in consequence the last condition of this curious and abnormal republic is worse than the earlier stages. Talented, honest, and reputable men, who are unable to recognise any Divine right in the state of legalised anarchy now reigning in their country, are leaving the Transvaal public service, which now contains very few servants rising above mediocrity in talent. The end of the "Dopper" *régime* is, it may be hoped, almost within sight. A vigorous opposition is forming in the Volksraad, who are not content to swallow every utterance proceeding out of the mouth of Kruger as an inspiration, and when the little knot of independent politicians, who number among them many men of ability, and who may be supposed to voice the sentiments of a considerable section of the community, have got into a state of organisation, a strong and, we hope, a deadly blow will be aimed at the Kruger dictatorship.

ACCORDING to information from reliable sources, the demand in South Africa for mining machinery is increasing, and this field for English enterprise now holds out unusual promise to the engineering manufacturers of this country. Properly to take advantage of the opportunity, however, it is of the first necessity that the makers should keep pace with, and even forestall, the demand. Undisputed pre-eminence in the field of supply is in these days only maintained by the most careful circumspection, happily conjoined to a turn for well-judged enterprise, and the manufacturers must closely watch developments in the gold field and be ready to make instant improvement upon former designs, so that every successive advance in mining and metallurgical methods may be satisfactorily met. Probably the chief point of new departure in mining methods was marked by the introduction of electricity as a motive power, and a feature in present day Rand mine equipment, which has deservedly received great attention, is the provision of a central electric power station for generating the power by which the pumps and the hauling and driving gear are worked. In this, as in other directions, the manufacturer appears to have risen to the occasion with the utmost alacrity. Hardly a week passes, we are informed, without some new machine being put upon the market, and while, no doubt a certain proportion of these must eventually be relegated to the lumberdom of forgotten failures in the art of inventing, a large proportion remain to redound creditably to the originators and profitably to the industry.

ONE of the rocks ahead which mining men will have to use all their ingenuity to avoid is, undoubtedly, the scarcity of labour in the Transvaal and our colonies. In districts like the Gold Coast of Africa, where black humanity surges over the country in never-ceasing waves, each unit struggling for the barest pittance that will keep the fire of life burning, there is an unlimited supply of labour at a price, the mention of which would disturb the gravity of the British workman. In other quarters of the globe, where flesh and blood is at a higher premium, and where by experience the native has learned his own value as a workman under the broil-

ing sun of his native sky, the state of affairs regarded in the dry and unsympathetic light of political economy is not half so satisfactory to the employer. Thus we read of a sensible diminution in the Rand output, due to no falling off in the producing capacity of the mines, but simply to the scarcity of that *sine qua non* of African mining enterprise—native labour. Australia, by the peculiar circumstances of its industrial position, is largely untouched by the evil—at least in this particular form—and has in exchange for the immunity therefrom to negotiate at a disadvantage with the skilled white miner, who yields to no one in the estimate of his own value as an economical factor, and who skilfully plays off one mine manager against another in the desire for higher wages. In Bengal the evil has come to that acute stage when Governmental intervention has become necessary, and the formation of a commission to enquire into causes and remedies "for the existing scarcity of labour in the province" may be taken as official recognition of the difficulty. We can only wish the enquirers good fortune and success in their efforts at a solution of the problem.

THE question whether the provision of water for West Australia shall remain a private enterprise or be relegated into the hands of the Government, is one with which vast interests are identified. However much Chairmen at meetings of West Australian mining companies may deprecate all exaggeration of the water difficulty, the fact remains that the scarcity is undoubtedly felt in many districts, and that before the industry in the now famous Coolgardie district can be free to expand itself within the extreme limits of its productive capacity, vigorous measures must be taken to mitigate the water famine. In this connection it is by no means a pleasure to know that a scheme for bringing water to the gold fields would mean the expenditure of millions, and that, consequently, it has been abandoned by the Government as too costly a means of overcoming the evil. The position of the administration is, in fact, one that entitles them to a certain measure of sympathy. West Australia is a young colony to undertake a public improvement, whose cost runs into millions, and a little hesitation on the part of the colonial cabinet to embark upon such a costly policy is natural, and even commendable. At the same time water the mining industry must have, and it is to be hoped that the experimental borings will be vigorously and energetically carried out, so to turn to the utmost limit of account the possibilities of this method of supply. In any case there is no ground in the situation for positive discouragement. Greater difficulties than this have been overcome by the ingenuity of our engineers, and the annihilation of the water difficulty is surely only a question of time.

THE MINING MARKET.

FRIDAY EVENING.

Holidays interfere with business.—A better tone at the close in response to the more cheerful political feeling.

THE chronicle of the Mining Market for Christmas week is not an exciting record at the best of times. This year, thanks to the depression in the American Market, which has diverted attention from mines, there is even less than usual to relate. We left the Yankee section in the throes of a financial panic, the effects of which may not be cleared off for some little time to come. The fact that Christmas Day fell, not only in the middle of the week, but in the middle of the settlement, quite killed new business, and commitments had previously been reduced to such a small compass that there were very few closing operations to call for attention. On Saturday the market opened generally lower, but at the reduced level buyers came in and brought about some revival. There were sharp movements in the Goldfields Group, the highest and lowest transactions representing wide differences. Chartered left off lower, and a good many Gold shares lost ground. The West Australian Market was weak, although free from excitement, and prices sagged away considerably. There was very little going on in Miscellaneous. On Monday, which was the last day of dealing for the end of December Account, so far as mines were concerned, prices opened rather better. The small gains, however, were not maintained, and after a general sagging away, the close in the Street was flat, and this notwithstanding a fair rally in the Yankees. A noticeable movement was the heavy fall in De Beers, generally attributed to Paris sales. Gold Fields also were very flat, and others sympathised to a less degree. The amount of business doing, however, was small. West Australians were flat during the morning, but some support was forthcoming, and the closing, in many instances, was above the worst. There was nothing doing in Miscellaneous. Christmas Eve witnessed a very easy carry-over, the attendance in the House being as small as possible. The Account to be arranged was inconsiderable and rates were easy, about 6 per cent. representing the average contango. Some hardening was observable in Kaffirs after the making-up had been fixed, but in the absence of fresh buying orders, prices sagged away, and the close was dull. There was practically nothing doing in Westralians. The making-up list, more especially for South Africans, shows some very startling declines on the account. In fact, there were only three cases of fractional gain, whilst, on the other hand, some of the losses were serious. The House, of course, was closed on Wednesday and Thursday, and there was not very much business doing when members returned to the cellar this morning. The making up for the general account has been in progress, and Americans have indulged in some rather wide fluctuations, but the so-called war scare has passed away, and if no serious failures are reported on Pay Day, it is not unreasonable to hope for some increase of activity in mines. The leading Home Securities and Foreign Bonds show a marked advance at the close to-night. Mining prices, on the other hand, are a shade below the best, though a pretty general improvement is displayed in the quotation list. The account will not be concluded until Monday, and on Wednesday the House will be closed according to ancient custom, so that business will hardly make a fair start until after the turn of the year.

South Africans.

The most active stock during the past week has been Gold Fields Deferred, selected on account of the ready market for hedging operations by holders of less negotiable securities. We left these shares at 11. On the renewal of the American scare on Saturday, they were sold down to 10⅛. Buyers then came in, bringing about a sharp rally to 11⅛. On Monday there was a fresh fall to 10⅝, which was aggravated to 10 1/16 on Tuesday. This morning the price opened at 10½, and there was a smart spurt at 11, which leaves the shares unaltered on balance. Gold Trusts have been well supported in anticipation of the early payment of a big dividend. The price dipped to 6⅞ on Saturday, but at one time this morning showed a recovery to 7⅛. Finally the shares are ⅛ down at 7⅛. Goldfields Deep were specially depressed more than once during the week, touching 5⅞ on Saturday, and rallying to 6⅜, only to plunge again to 5⅛ on Tuesday. This morning witnessed a sharp rise of over a point before noon. The last price is 6½, which represents a net loss of ⅛. Chartered opened at 4⅞ on Saturday, but broke heavily, finishing, however, with a marked recovery at 4⅛. There was very little doing in these shares on Monday, but on Tuesday fluctuations were incessant between 4⅝ and 4⅜. The option accounts for the year have now been arranged, a good many shares being "put" at various prices over 4⅛. The adjustment of "rights" to the new shares was made on the basis of 1/16 per old share. An upward tendency was developed to-day, and the last price, 5⅛, shows a gain of ⅜. The new shares have kept steady round about 1⅛. East Rands fell to 4⅜ on Saturday, and after hanging about this price throughout Monday, closed on Tuesday at 4½ with a healthier appearance, which was justified by an improvement to-day to 4 11/16. St. Angelo are ⅛ down at 2⅞, and New Comets 1/16 lower at 2 1/16. Rand Mines made up at 21¼ as compared with 26½ on the previous occasion. The shares actually changed hands at 20 on Tuesday, but close at 22½—a loss of 1¼ on the week. The Barnato group has not displayed much activity except in the case of Buffelsdoorn, in which there is a bear account to work upon. The shares have been in demand to-day, and close 1/16 up at 3⅜. Barnato Banks are 1/16 better at 1⅜, after dipping to 1⅛. The Consols are ⅛ down at 2⅛. Rietfonteins have risen 1/16 to 3⅛, and New Primroses 1/16 to 6⅛. An interim dividend of 25 per cent. is declared on the latter. Glencairns are maintained at 3⅞, a dividend of 12½ per cent. being declared. Unimportant declines are shown in Croesus at 1 1/16, George Goch at 2⅛, May Consolidated at 2 1/16, and Johannesburg Investment at 3⅛. Knights were depressed on Saturday and lost further ground on Monday, and as there has since been practically no recovery, the shares at 4⅜ mark a decline of a full point. The Robinson group has been fairly firm, except in the case of the Banks, which were very much out of favour on Monday, and lost a point, which has not been recovered, at 4⅛. These shares were up at 11 during the boom, but somehow or other their collapse has not attracted the same attention as that of Barnato Banks. Langlaagte Estates are ⅛ down at 5⅛, and Randfontein the turn lower at 2⅜ after changing hands under 2⅛. Amongst Deep Levels Geldenhuis Deep has lost ¼ at 5⅛, Consolidated ¼ at 4⅛, and Nigel Deep ¼ at 1 1/16. Roodepoort Deeps are exceptionally ¼ higher at 3. In the Eckstein group the only gain is ¼ in Citys at 4⅝. Simmer and Jack have shed a point at 20, Ferreira ½ at 16, and Salisbury ⅜ at 3⅛. Jumpers were sold down to 6⅝, but recovered this morning to 7⅛, whilst Modders leave off at 7⅝, after being offered under 7. Business has been on so small a scale that there is not much to record away from the index shares. Van Ryns are unchanged at 5⅛, but the subsidiary Wests are ⅛ down at 2⅞. Declines of ⅛ are shown in Bantjes, at 2⅛, and Kleinfontein at 3⅛. Robinsons changed hands at 8⅜ this morning, and close 1/16 down at 9 1/16. In Crown Reefs at 10, Durbans at 7⅛, Orions at 3 1/16, Wolhuter at 7, Worcester at 4, and Village Main Reef at 4⅞, declines are marked not exceeding ⅛. Transvaal Gold are ⅛ to the good at 4⅞, but the little Lydenburg shares are all a few pence lower. Klerksdorps are a shade harder at 12s., although the Contango on them at the Settlement was relatively high. Potchefstrooms are unchanged at ⅛, Willoughby Consols at 1⅜, and Bechuanalands at 1 1/16. Pardy's Mozambique are rather easier at 2. New Africans are ⅛ better at 4⅜ on rumours of 100 per cent. dividend, but 'Austral-Africans' are not much better than par. London and South African Exploration, after being put down, recovered £1 on Tuesday at 14, which leaves them rather higher on the balance. Henderson's at 2⅛, Exploring Land and Minerals at 1⅛, and Anglo-French Exploration at 3 1/16, are all slightly better. De Beers have fluctuated severely. After losing ⅛ at 24 on Saturday, the shares were at one time as low as 22½ on Monday. The last price to-day, 23⅛, shows a loss of ⅛ on balance. The shares were carried over at 6d. contango, and the rate entirely went off at the close, indicating that the bears had been at work. Jagers also were in short supply at the settlement, but close ⅛ down at 8⅛. The small Diamond shares are generally easier.

West Australians.

Business in this department has been on so small a scale that there is practically nothing to be said about it. True Blues were marked down on Saturday to 1⅛, and at 1⅛ show a fall of ¼ on the week. Hampton Plains have shed 1/16, at 3⅛, Great Boulders ⅛ at 5, after touching 4⅞, Hannan's Brownhill ⅛ at 5⅛, White Feather 1/16 at 2, Lake View ⅛ at 2⅛, Associated ⅛ at 1⅛, and Lady Mary ⅛ at 1⅛. Golcondas are unchanged at ⅛, the company being ordained for reconstruction. Gains of ⅛ are shown in Black Flag at ⅛, and Pilbarra at ⅛. Of the Finance and Exploration group, West Australian Gold Fields have lost ⅛ at 5⅛, W.A. General Association ⅛ at 4, W.A. Gold Estates ⅛ at 2, Colonial Finance ⅛ at 3⅛, and Western Australian Investment ⅛ at 2. Very little attention, however, need be paid to quotations in this section, as they are in many cases merely nominal pending the development of wider business.

Miscellaneous.

The more cheerful political outlook has contributed to a gain of ⅛ in Rio Tintos at 15⅛, but other copper shares are without feature. There is scarcely a quotable change in the Indian Gold group. Amongst New Zealanders, Waihi shows a loss of ⅛ at 5⅛, and Silvertons are ⅜ down at 2⅝. Declines of 1/16 are shown in Broken Hill Props at 2⅛, Burma Rubys at ⅛, and Mount Morgans at 2⅞. The Wentworth group is harder, Wentworths at 1⅛ and Aladdins at 1 1/16.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follows:—

CONSOLS.

Friday, January 3.

STOCKS AND SHARES.

DECEMBER.

Ticket Days.	Account Days.
Saturday, December 28	Monday, December 30

JANUARY.

Wednesday, January 15	Thursday, January 16
Wednesday, January 29	Thursday, January 30

Contango Days for Mining Market:—

Monday, January 13	Monday, January 27

ST. JOHN DEL REY.—The following telegram was received from Mr. Chalmers on the 24th:—"Produce 10 days, second division, December, 9500 oitavas, equal to 1095 ounces troy; value, £3681. Yield per ton, 5·5 oitavas (6340 ounces troy)."

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

GOLD FIELDS OF MOZAMBIQUE.

The directors of the Gold Fields of Mozambique, in their report to September 30 last, state that "during the period now under review—viz., from April, 1894, to September, 1895—the following sales of claims have been effected, viz.: 14 quartz reef claims to the Lion (Mozambique) Gold Company (Limited); 12 quartz reef claims to the Tiger (Massi Kessi) Gold Company (Limited); 40 alluvial claims to the African Alluvial Gold Mines (Limited); the total of the above claims being 66, leaving 34 claims under the deed of grant from the Companhia de Mozambique unsold. In addition to the above 40 claims there were 39 others disposed of to the African Alluvial Company. The cost of obtaining these additional claims by your company (under the ordinary mining regulations of the Companhia de Mozambique) is included in the expenditure in Mozambique debited to the profit and loss account. It will be observed from a perusal of the balance-sheet that your company possesses assets of a very important nature. The property account, which stood in the last balance-sheet at £42,992, is written down to £14,617, this amount representing the proportionate cost of the 34 claims unsold. The amount of £28,374 written off from the property account to profit and loss account represents the original cost of the 66 claims sold. By adding the net cash expenditure—viz., £3652—a total of £32,026 is arrived at, this being the amount at which the shares in hand of the Lion, African Alluvial, and Tiger Companies may be considered to stand in our books, the nominal value of such shares, at par, being £86,620. Bearing in mind that mining work is being actively prosecuted by each of these subsidiary companies, and that in each case the existence of payable gold has been demonstrated, it may fairly be expected that the amount eventually realised from the above-mentioned 86,620 shares of the nominal value of £1 each may be sufficient, not only to cover the original cost, but also to leave a considerable margin of profit for future accounts. The same remark applies to the 1000 shares in the West Australian Prospectors (Limited), which have cost your company the sum of £562, with a liability of £187. In regard to the liquid assets as distinct from the shares in hand, it may be pointed out that the company is favourably situated. The cash in hand, viz., £2415, together with the unpaid calls of £10,005, and the balance between debtors and creditors, make up a total of £12,893, the whole of which may be considered available for the purposes of the company when required. As an item of general information bearing upon the prospective value of the company's interests and claims, it may be stated that the railway between the port of Beira and Fontesvilla, on the Pungwe river, is expected to be completed early in the New Year, giving direct railway communication between Beira and Chimoio, a distance of about 50 miles from Massi Kessi, in which district the claims sold and possessed by your company are situated. There seems also good reason to expect that this railway, which will pass through Massi Kessi, will be pushed forward to reach Salisbury, in Charterland, at no distant date, the outlet to the port of Beira being of such immense importance in connection with the mining and other operations of the British South Africa Company. Our agent, Mr. Niness, reports that the district is swarming with prospectors, and that claims are being taken up in considerable numbers by various English and foreign companies. In view of the results already achieved, and the present outlook in regard to the company's operations in Mozambique, your directors have good reason to believe that a successful issue awaits your enterprise."

AFRIKANDER GOLD MINE (LIMITED).

The report for the year ending June 30, to be submitted at the fourth ordinary general meeting to take place in London on Monday, states that an important alteration in the position of the undertaking has taken place since the issue of the last balance-sheet, consequent upon the adoption of the agreement entered into with the African Gold Recovery Company, under which 153 additional mining claims, adjoining the original property, have been acquired in exchange for 70,000 fully-paid £1 shares. In order to provide these shares and the requisite further working capital an issue of 150,000 additional shares was authorised, of which 50,000 were offered to the shareholders, and subscribed for, at par, and 10,000 were subscribed for by the African Gold Recovery Company—the remaining 20,000 shares being held in reserve, but with an option to the African Gold Recovery Company to call them at 10s. per share premium until April 19 next. During the period under review the mine was worked under many disadvantages, and the mill treated 9191 tons, yielding 2682 ounces of gold; 11,493 tons were also treated by the cyanide process, yielding 3284 ounces of gold. During April and May merely the tailings, which had accumulated during previous years' workings, were treated by the cyanide process. The total value of the gold won amounted to £17,935. The directors, recognising the necessity for the erection of machinery on a largely increased scale, so soon as the additional working capital had been provided, decided in May to shut down the mill, and proceed as rapidly as possible with the development of the mine in order to have an ample supply of ore in reserve. This is being carried out with the utmost vigour. The manager was requested to come to London, after first carrying out experiments on a large scale, to decide as to the most suitable of the modern methods adopted on the Rand for the treatment of the ore, and during his visit, with the approval of the board, the necessary machinery was ordered for fully equipping the mine, and which is now in the course of being shipped. The directors are thoroughly satisfied as to the great value of the property, and having had the advantage of personal consultation with the manager, can assure the shareholders that so soon as the new machinery is in operation the most gratifying results are anticipated.

SUTHERLAND REEF.

The report of Sutherland Reef (Limited) for the year ending September 30, to be presented at the third ordinary general meeting to be held in London on Monday, states that the accounts in South Africa have been brought up to June 30. Since March 1 the battery has run almost continuously, and up to November 30 has produced 5452 ounces of gold from 15,260 tons of ore, an average of 7·14 dwts. per ton. The value of the gold for the nine months was approximately £21,535, and the estimated working expenses at the mine, irrespective of depreciation of plant, were £18,200. Owing to the working capital having been expended in the erection of machinery and development of the mine, and the returns from the crushings proving to be so much less than the board had been led to expect by the late manager, the directors found it necessary to ask the shareholders to authorise the issue of preference shares, in order to provide funds for the repayment of the debentures and for future development. By a special resolution passed at the meeting on June 13 last, the share capital was increased to £264,000 by the creation of 44,000 £1 preference shares. The

directors offered 22,000 of these shares for subscription, and they have been taken up. The cost of mining and milling is proving to be about 24s. per ton. The cost of labour is low, though it has a tendency to rise, owing to the demand for "boys" for the Rand. The directors are of opinion that the total cost of mining, milling, and management in South Africa will not exceed 20s. per ton as soon as 40 stamps are at work, which figures will compare favourably with the majority of South African mines. Owing to exceptional difficulties encountered, the sinking of the main shaft has been delayed, but is now being proceeded with as quickly as possible. The directors are led, from the various advices and reports, to believe that the returns from upper levels cannot be taken as a fair criterion of the future prospects of the mine, but the developments already effected warrant the opinion that the property is a valuable one.

SAPPHIRE AND RUBY OF MONTANA.

The report of the Sapphire and Ruby Company of Montana (Limited) for the year ending September 30, to be presented at the fourth ordinary general meeting to take place in London on Tuesday next, states that the balance-sheet shows an apparent loss of £1272, but that the directors have been informed by cable that subsequent to the period covered by the accounts there has been a further clean up of gold at York Gulch, amounting to $11,200. It may also be stated that, although there was no attention paid to the mining of gems during the past season, there are now on hand in this country and America a very large quantity of stones in the rough, which, until cut and polished, it is impossible to value, and upon which, for the purposes of this account, a merely nominal value has been placed. At the beginning of the mining season of 1895 the company being still without working capital, the directors decided to accept the proposal of Mr. A. N. Spratt, managing director in America, and who personally owns the majority of the shares, that he should at his own risk and expense carry on mining operations for alluvial gold, on such portions of the property as he might find the most available, and that he should disregard the mining of gems until a more active demand for them should arise. It is encouraging to note that this work, although carried forward on a small scale, has yielded during the last hydraulic mining season a considerable profit on gold mining, which tends to confirm the opinions hitherto expressed by various engineers as to the value of the property for alluvial gold mining, irrespective of the gems. In view of the encouraging results from these gold mining operations, and with regard to certain negotiations now in progress, the directors hope to be able to submit to the shareholders at the general meeting proposals which it is believed will be to the advantage of all parties interested in the welfare of the company to accept.

OURO PRETO GOLD MINES OF BRAZIL.

The report of the directors of the Ouro Preto Gold Mines of Brazil for the year ended June 30 last, states that the revenue account shows that the value of the gold produced during the year was £60,097, which, with the amount received for rent, brought up the total income to £60,148. The total expenditure was £48,919, leaving a balance of profit of £11,229, which, with the balance brought from last account, and the amount received on shares forfeited, makes the gross amount of profit £12,246, which has been dealt with as follows:—The sum of £1257 has been written off for depreciation of buildings, machinery, and plant at the mines, £2783 has been paid for interest on the debentures, £145 has been paid as balance of income-tax, and £3500 has been carried to a reserve fund to meet the redemption of the debentures, leaving a credit balance of £4558 to be carried to next account, out of which a dividend of 1s. per share, free of income-tax, amounting to £3997, was paid on August 15 The quantity of ore crushed was 84,522 tons, as compared with 38,919 tons in the previous year. The quantity of gold produced is less than last year in consequence of more of the free gold being taken from the concentrates before they reached the chlorination works, but the extraction is quite as good, being over 91 per cent. Much trouble has been experienced by the scarcity of labour, caused principally by an outbreak of cholera, which was afterwards followed by an epidemic of smallpox, which had the effect of driving away the greater part of the Brasilian workmen. The successful efforts made by Mr. Gifford and his assistants to prevent the spread of the disease, which might have resulted in a temporary stoppage of the work, deserve the warmest thanks of the shareholders.

IDAHO EXPLORING COMPANY (LIMITED).

The report for the year ending December 1, to be presented at the second ordinary general meeting to be held in London on Friday next, states that the total available balance is made up as follows:—Brought forward from last account, after payment of dividend, £7015; profit on trading account, £7342. The company has also received £1914 premium on issue of shares, making a total of £19,271. The directors recommend that a cash dividend be paid of 6d. per share, which will absorb £8013. The company also has available, for the purchase of properties, or for other purposes, unissued shares, worth, at the present time, nearly £30,000, and there are no liabilities beyond the trifling amounts incurred in the ordinary conduct of business. In addition the company owns claims in Western Australia, consisting of the Emily, 12 acres; Lillian, 12 acres; Kensington, 24 acres; Adelaide, 12 acres; and Adelaide Extended, 12 acres. A considerable amount of development work has been carried out on these properties, details and results of which will be given at the meeting. The properties have been selected by Mr. Alvah H. Axford and Mr. F. Hertzberg, a director of the company, and both gentlemen have a high opinion of the claims. The company, in pursuance of its policy, is now negotiating for the sale of claims on very remunerative terms, and expects arrangements to be shortly concluded which will show results of an exceedingly profitable nature.

ROODEPOORT DEEP LEVEL GOLD MINING COMPANY (LIMITED).

The report to June 30, to be presented at the fourth ordinary general meeting to be held in London on Tuesday, reminds the shareholders that the share capital has been increased by 60,000 shares of £1 each, of which 50,000 have been taken up at 35s. by the shareholders *pro rata*, the balance of 5000 being sold at £2 17s. 6d., leaving a reserve of 5000 shares. Since the date of the last report operations at the mine have been actively continued, and the developments are now well advanced. The character of the ore has continued to be most satisfactory, the assays showing an increased value, and there are now 45,000 tons of first-class ore developed and ready for stoping. The manager estimates that the minimum total extraction will be an ounce to the ton. The erection of the 40-stamp mill was delayed, firstly, on account of the manufacturers being so full of orders; and, secondly, from the congested state of traffic, chiefly owing to the action of the Transvaal Government in closing the drifts of the Vaal river. The whole of the machinery is, however, now on the ground, the greater part is already erected, and cable advices from the manager state that he expects to commence regular crushing in January next. The main dam has been repaired and raised, and a good water supply is now assured.

— The hoisting and pumping machinery in connection with the GEM OF CUB has been ordered, and will be shipped immediately to the mine.

LOMAGUNDA DEVELOPMENT.

The report of the Lomagunda Development Company (Limited) for June 18, 1894, to June 30 last, to be presented at the annual general meeting to be held in London on Monday, states that, according to the balance-sheet, the reserve shares stood at the end of June at 29,500 shares, but that since that date the vendor has called 5000 of these shares, as he was entitled to do under his agreement, and that most probably he will exercise his right to the option on the remainder, in which case the cash available for further development would be increased by £29,500. Although the directors consider the consulting engineer has been exceedingly careful, and taken a very safe line in framing his report, they fully agree with the concluding paragraph: "In conclusion, I would say that I believe in directing all our efforts to the proving of the Ayrshire, which holds out a promise of a splendid result, and then when the success of that is assured it will be in order to give a trial to your other holdings." In view of this opinion, the board have given instructions to concentrate all efforts on the Ayrshire. The labour question is set out very prominently as a great difficulty, and will have to receive the careful attention, not only of this company, but of all interested in mining in Rhodesia, as well as in South Africa generally.

SOUTH AUSTRALIAN PETROLEUM FIELDS.

The directors, in their report, state that the lease of the land in Australia has been allowed to lapse, and instructions have been given to Mr. Cox, of Adelaide, to sell the machinery on behalf of the debenture-holders. The two properties in Burmah have been under the management of Mr. J. W. Crosbie, but, as the directors were not satisfied with the results obtained, his engagement terminated last July. The properties are now in charge of Mr. Haley, who formerly worked under Mr. Crosbie, and he, with the assistance of Mr. Smith, the driller last sent from Canada, is carrying on the work both at Minbyn and Barongah. The output of oil from both properties has not been sufficient to enable remittances to be made to London, and this, with the unexpected pressure brought to bear for the payment of Mr. Senior's mortgage, will be a subject for consideration at the meeting.

MILLS' DAY DAWN UNITED GOLD MINES COMPANY (LIMITED).

The report for the six months ending September 30, presented at the ordinary half-yearly meeting held at Charters Towers on October 23, stated that operations of a developmental character accomplished during the period under review included the extension of levels in the aggregate 797 feet, crosscuts 381 feet, and winzes 517 feet, whilst the underlie shaft had been deepened 78 feet, or altogether a total of 1763 feet of fresh ground broken. The quantity of stone extracted was 19,761 tons, which yielded 18,949 ounces 17 dwts. of gold, valued at £68,726, inclusive of £1238 realised from the disposal of sludges. The output of quartz decreased by 1867 tons, and the yield diminished by 9882 ounces, equal to 7 dwts. 14 grains per ton on the previous half-year. The average cost per ton, including all expenditure except dividends and dividend tax, amounted to £2 4s. 6¼d., which was higher than that of the previous six months. The dividends paid came to £22,500, equal to a rate of 15 per cent. per annum on the capital, and dividend tax absorbed £1125. The total distribution of dividends was now £292,500—only £7500 less than the whole nominal capital, and £59,325 in excess of the called-up capital. The account was in credit £5719, and the reserve fund remained unbroken at £5000; a further sum was due for sludge sold, but not then paid for, and the stock of fuel, stores, timber, &c., on hand represented £1842.

WEST AUSTRALIAN PROSPECTORS.

The directors, in their report to September 30 last from the date of the formation of the company (about thirteen months), state that, "considering the small amount of paid-up capital employed, it will be seen that business of importance is in progress. Against a total outlay £3381, the following assets are shown:—About 1365 (1500 less, £135 realised) shares, fully paid, of £1 each in the Mount Rowe Consolidated Mining Company (Limited); gold bonds amounting to £625, payable out of the first crushings to the same company; 20,000 shares at 5s. each, fully paid, in the Gold Explorers (Limited), one-sixth interest in the Perseverance Mine. The above property and interests are in connection with Western Australia. The companies in which we hold shares are of a decidedly progressive and promising character, and your directors hope that the realisation of your assets may be continued in the coming year to an extent which will give additional financial strength, and enable your company to extend its sphere of profitable enterprise."

BROKEN HILL PROPRIETARY BLOCK 10.

The report of the Broken Hill Proprietary Block 10 Company (Limited) for the half-year ended September 30 states that the experimental plant ran almost without interruption, treating 8263 tons of crude ore, which produced 2514 tons of concentrates and rich slimes. The result of the working shows a net profit of £11,039 after writing off £2684 for depreciation, making the amount now standing at the credit of profit and loss £49,276. The gross profit earned was £31,333, and the working expenses came to £16,380.

COLONIAL BANK (LIMITED).

The directors have resolved to recommend a dividend of 5 per cent. for the half-year ending June 30 last, being at the rate of 10 per cent. per annum.

MEYER AND CHARLTON GOLD MINING COMPANY (LIMITED).

The directors have declared a dividend of 25 per cent. for the six months ending December 31.

— Shareholders in the IVANHOE GOLD MINING COMPANY (no liability) are notified that the option granted to shareholders of taking up shares of the new issue has been extended to January 18, 1896.

— The GELDENHUIS MAIN REEF GOLD MINING COMPANY (LIMITED) has declared a dividend (No. 3) of 10 per cent., payable in London and Johannesburg to shareholders on register, December 31.

— MEYER AND CHARLTON GOLD MINING COMPANY (LIMITED).—Dividend of 25 per cent. declared for the six months ending December 31. The dividend warrants will be issued from the head office, Johannesburg, immediately upon receipt of the European transfer lists up to December 31, and delivered to the shareholders about March, 1896.

— The coupons due January 1, 1896, of the ARAUCO COMPANY (LIMITED) Five per Cent. Mortgage Bonds will be paid on and after that date by the Bank of Tarapaca and London (Limited), 43, Threadneedle-street, E.C.

— The transfer books of the NEW AFRICAN COMPANY (LIMITED) are closed from the 24th to the 29th inst., inclusive, preparatory to the payment of an interim dividend of 100 per cent.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, DECEMBER 27.

Copper.

THE shipments from America continue heavy, and the commercial and financial position there is such that, with the big production there and a decrease in the consumption, Europe will, for some time to come, have to take large quantities of American copper—probably more than is really wanted. The tendency of copper has accordingly been flat, and the article closes easier for the week. Still the political outlook and the tone in the various Bourses may every now and then temporarily make the speculative market a little steadier. The opening value of cash G.M.B.'s was £42 15s., but £42 10s. was accepted the same day, whilst three months was dealt in at £43 2s. 6d. to £42 16s. 3d., about 1000 tons in all changing hands. On Tuesday morning three months dropped to £42 12s/6d., and spot to £42 2s. 6d., but the tendency then improved, and the close was firm at £42 7s. 6d. to £42 8s. 9d. s.c., and £42 15s. to £42 16s. 3d. three months.

Tin

Has been a quiet, uneventful market, with transactions in spot Straits at £61 7s. 6d. to £61, and three months at £62 to £61 12s. 6d., the close being rather better at £61 2s. 6d. to £61 3s. 9d. s.c., and £61 13s. 9d. to £61 15s. three months. Straits, In the Dutch market Billiton opened at 37½ fl. s.c. and 37¼ fl. three months, and the two positions close respectively at 36¾ fl. and 37½ fl., with a somewhat harder tendency, however. Banca closes at 37½ fl., sellers,

Pig Iron.

Shipments from Scotland last week were advised as 3400 tons, or about 800 tons less than for the parallel period of 1894. The value of Scotch s.c. has fluctuated between 45s. 9½d. and 45s. 5½d., closing firmer at 45s. 9d. sellers. Hematite and Middlesbrough close respectively at 46s. 8½d. and 36s. 8½d.

Lead

Closes quiet, there being just now a lull in demand. The final quotations are £11 5s. to £11 6s. 3d. soft foreign, and £11 8s. 9d. to £11 10s. English.

Spelter

Closes also very quiet, with ordinaries at £14 11s. 3d. to £14 12s. 6d, and specials at £14 13s. 9d. to £14 15s.

Antimony

Remains steady at £30 to £30 10s.

Quicksilver

Unchanged at £7 7s. 6d, firsts, and £7 4s. seconds.

The following are to-night's (December 27) prices of metals:—

	£	s.	d.		£	s.	d.
Copper.							
Tough cake and ingot	45	15	0	.....	46	5	0
Best selected	46	5	0	.....	46	10	0
Electrolytic Copper	46	5	0	.....	46	5	0
Sheets and sheathing	52	10	0	.....	53	0	0
Flat bottoms	55	10	0	.....	56	0	0
Chili bars, spot, & 3 months respectively	42	8	9	.....	42	16	3
Good merchantable,							
Copper tubes, seamless	—			.....	0	0	7½
Alloys.							
BRASS: Wire	—			.....	0	0	5¾
Tubes (solid drawn)	—			.....	0	0	6¾
Sheets	—			.....	0	0	5¾
PHOSPHOR BRONZE: Alloys H.	—			.....	78	0	0
III. or Cog Wheel Brand	—			.....	81	0	0
VII.	—			.....	83	0	0
XI.	—			.....	78	0	0
Vulcan brand A1	—			.....	72	0	0
DURO METAL	—			.....	72	0	0
BULL'S METAL	—			.....	65	0	0
Ferrobronze (Vivian's).							
Ingots, per lb.	0	0	5¾	.....	—		
Ordinary sheets, plates, bolts and bars	0	0	6¾	.....	—		
Screw bolts and nuts	0	0	8¾	.....	—		
Pump rods, plain	0	0	7¾	.....	—		
" finished	0	0	10¾	.....	—		
DELTA METAL: No. 4 (per ton)	—			.....	—		
Sheets and plates (per lb.)	—			.....	—		
Bars, round, square, flat (per lb.)	—			.....	—		
" hexagon (per lb.)	—			.....	—		
Tin.							
English, ingots, f.c.b.	—			.....	64	15	0
" bars	—			.....	65	15	0
" refined	—			.....	66	15	0
Straits, spot and 3 months respectively	61	3	9	.....	61	15	0
Australian spot, and three months respectively	61	16	3	.....	62	7	6
Banca " (in Holland)	62	2	6	.....	62	7	6
TIN PLATES: Charcoal, best quality per box	0	12	0	.....	0	14	0
" ordinary	0	10	9	.....	0	11	6
" Coke, best quality	0	9	9	.....	0	11	3
" ordinary	0	9	3	.....	0	9	6

These prices of tinplates are f.o.b. at Swansea: at Liverpool 6d. per box more.

Iron.							
Pig, G.M.B., f.o.b., Clyde, spot	—			.....	2	5	3½
" Scotch pig, No. 1 Gartsherrie	—			.....	2	11	0
" " Coltness	—			.....	2	14	0
" " Clyde	—			.....	2	10	6
" " Govan	—			.....	2	7	3
Bars, Welsh, f.o.b. Wales	—			.....	5	5	0
Plates "	—			.....	6	5	0
Bars, Staffordshire, at works	—			.....	5	10	0
Sheets " "	—			.....	7	5	0
Plates " "	—			.....	6	10	0
Hoops " "	—			.....	5	15	0
Ship plates, Middlesborough	—			.....	5	15	0
STEEL: English spring	—			.....	4	17	6
" cast	—			.....	16	0	0
Rails at works, according to section	23	0	0	.....	52	0	0
	4	2	6	.....	4	10	0
Lead.							
Spanish or soft foreign	11	5	0	.....	11	6	3
English pig, common	11	8	9	.....	11	10	0
" L.B.	—			.....	11	17	6
" sheet and bar lead	—			.....	12	7	6
" pipe	—			.....	12	17	6
" red	—			.....	14	10	0
" white	—			.....	17	0	0
" patent shot	—			.....	15	5	0
Spelter.							
Silesian ordinary brands	14	11	3	.....	14	12	6
" special brands	14	13	9	.....	14	15	0
English Swansea	15	3	9	.....	15	5	0
Sheet Zinc	13	2	6	.....	13	5	0
Antimony.							
Antimony	30	0	0	.....	30	10	0
Quicksilver.							
Flasks, 75 lbs. warrants	7	4	0	.....	7	7	6
Manganese. per unit.							
Ore, c.i.f., U.K. ports							
1st quality, 50 per cent. and upwards	0	0	11	.....	0	1	1
2nd " 47 per cent. to 50 per cent.	0	0	10	.....	0	1	0
3rd " 40 " 47 per cent.	0	0	9	.....	0	0	11
Aluminium.							
98-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	Per lb. 0	1	6½	.....	Per lb. 0	1	7
do do (1 ton lots)	0	1	5	.....	0	1	6
Nickel.							
98-99 per cent. guarantee	0	1	1	.....	0	1	3

IN consequence of the recent mining boom, so large an accession of work has fallen upon Mr. W. R. Horncastle's advertisement agency that he has found it necessary to carry out a considerable enlargement of his business premises. The first and second floors having been found inadequate, the basement was pressed into service, and has been set aside exclusively for what is termed "giving out advertisements." That the addition has been planned on a considerable scale is obvious from the fact that there is said now to be accommodation sufficient for representatives of all the newspapers in London, in the extremely unlikely eventuality of their putting in an appearance at the same time, together with seats for some 25 clerks. This extension of business premises is an additional evidence—where none was needed—of the manner in which affairs have expanded themselves in company circles during the past 12 months.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bz*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Rubv; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; † in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and †, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

*** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price, Dec. 27, 1895	Closing Price Dec. 20, 1895.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£		£ s. d.			
Abercorn Reef ...*G*	-/8 1/	-/8 1/	5/-	—	0 4 0	—	Millwood	16, Tokenhouse Yard
Abbott's Con.Reefs	⅞ 1⅛	⅞ 1⅛	1 0	—	1 0 0	—	De Kaap	B oad Street Avenue.
Aldier Consolidatd	15/16 1 1/16	1 1⅛	1 0	—	1 0 0	250,000	—	1, Moorgate place.
African Alluvial ...	1⅛ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	130,000	Mozmabq.	11, Poultry.
,, Alluvial ...	5/6 6/6	5/6 6/6	1 0	—	0 3 6	20,000	,,	
,, Coal	5/- 5/6	5/- 5/6	1 0	—	0 16 6	320,000	Middelbrg	9,St. Swithin's-lane
,, Estates	1 1/16 1 9/16	2⅛ 2⅜	1 0	2/& rtsOc.16 95	1 0 0	4ac, 0c	,,	Winchester House
,, Consolid't ...	3/ 4/	3/ 4/	1 0	—	0 17 6	200,00	,,	3, Copthall-buildings
,, Gold Con.	3/ 3/6	3/ 3/6	10/	5⅞ Mar.. '95	0 8 0	300,000	Mossel By	16, Tokenhouse-yard
,, Gold Ryco.	1⅜ 1⅞	1⅜ 1⅞	1 0	rts Oct 30 '95	1 0 0	175,000	—	23, College Hill.
Afrikander	1⅜ 1⅝	1⅜ 1⅜	1 0	rts Oct. 30 '95	1 0 0	40,000	Transvaal.	,,
Agnes Block..... *G*	5/16 7/16	5/16 7/16	1 0	—	1 0 0	75,507	,,	54, Old Broad-street
Alexandra Estate*G*	1/16 9/16	⅛ ⅝	1 0	—	1 0 0	225,000	[illegible]	Warnford Court, EC.
Anglo-French Exp.	3½ 3⅝	3½ 3⅝	5 0	15⅞ Aug 29 '95	5 0 0	3[illegible]	A rica	170, Winchester Ho.
,, Matabeleland	2⅛ 3	2⅛ 3	1 0	—	1 0 0	39 750	Matabld.	Winchester House.
Appantoo ..... *G*	— —	— —	1 0	—	1 0 0	77,885	est Cost	23, College Hill.
Aurora ....*G*	1¼ 1⅝	1¼ 1⅝	1 0	5⅞ Mar.,'93	1 0 0	65,000	land	8, Old Jewry.[
,, West United	1⅛ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	100,000	,,	1, Crosby Square.
Austral-African ...	15/16 1 1/16	15/16 1 1/16xd	1 0	3/-Dec. 16'95	1 0 0	250,000	—	Token Ho., OpthilAv
Balkis Eersteling*G*	2/6 3/	3/ 3/6	10/	—	0 10 0	520,000	Transvaal.	85, Gracechurch-st.
,, Land	6/9 7/3	7/3 7/9	10/	—	0 10 0	520,000	,,	,,
Balmoral M. R....*G*	2 2¼	2 2⅛	1 0	—	1 0 0	158,750	Drier'nt'ln	7, Lothbury.
Banket.....*G*	7/6 8/6	7/6 8/6	1 0	—	1 0 0	200,000	Rand	Johannesburg.
Bantjes Consol ...*G*	2 2¼	2⅜ 2⅝	1 0	rts Sep 24 '95	1 0 0	83,000	,,	Warnford-court,[†
Barnato Bank	1 1 1/16 1 1 3/16	1⅝ 1¾	—	—	—	—	—	—
,, Consol ...	2⅛ 2¼	2⅛ 2⅛	1 0	—	1 0 0	1,000,000	—	1, Drapers gardens.
Barrett..... ...*G*	10/ 11/-	11/3 11/9	10/	—	0 9 0	207,498	De Kaap	17, Basinghall-street
Bechuanaland Exp.	1½ 1⅝	⅛ 1⅛	1 0	rts Jy 24 '95	1 0 0	400,000	Bechuana.	19, St. Swithin's-lane.
,, Trad'g Assoc.	1⅜ 1⅝	1⅜ 1⅝	1 0	10 p c May, 95	1 0 0	100,000	,,	,,
en Frovato	9/16 11/16	9/16 11/16	—	—	—	—	—	—
ig Golden Quarry	/6 1/	/9 1/3	5/-	—	0 5 0	483,226	Kaap Rivr	4, Bishopsgte. st. Wn.
look "B" Lang.	1 1/16 1 1 3/16	1¾ 1⅞	1 0	—	1 0 0	535,000	Rand	5, Princes-st., E.C.[
Bonanza	2 5/16 2 5/16	2⅛ 2¼	1 0	—	1 0 0	2 0,000	Turffont'n	120, Bishopsgate-st.
Brit. S. A. Char. ..	5 5/16 5 5/16	4 13/16 4 15/16	1 0	rts Jy 28 '95	1 0 0	2,000,000	S. Africa	15, St. Swithin's-lane
uffelsdoorn..... *G*	3⅜ 3½	3 3¼	1 0	16/-Nv. 28 '95	1 0 0	250,000	Potchefstr	7, Lothbury.
,, Central ...	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	—	—	—
,, Consolidated	1 5/16 1 7/16	1 1/16 1 1/8	1 0	—	1 0 0	225,000	—	Warnford Court
Buluwayo Synd. ...	1¾ 2	1⅞ 2⅛	1 0	5s Nov 28 '95	1 0 0	12,000	Matabld.	10, Helen's Place.
Cape Asbestos.....	1⅞ 2⅛	1⅞ 2⅛	1 0	—	1 0 0	50,311	Orange Rv	19, St. Swithin's-lane
,, Copper .....*C*	2 2¼	2 2¼ xd	2 0	2/6 Dec.16, '95	2 0 0	300,000	Cape Col.	9, Queen-street-place,
,, 6 ⅞ Pref. ...	2½ 2¾	2½ 2 3/16xc	2 0	2/6 Dec.16, '95	2 0 0	45,000	,,	,, ,,
Cassel Coal.....	1⅜ 1⅝	1⅛ 1¾	1 0	10pcJuly 11'95	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Cen. de Kaap	1/ 1/6	1/ 1/6	5/-	—	0 2 6	—	De Kaap	Palmerston Buildgs.
,, Montrose... *G*	8/6 9/6	8/6 9/6	1 0	—	0 15 6	69,000	Transvaal.	15,George st. Mn.Ho.
,, Roodp't Deep	1½ 2	1⅛ 2	1 0	—	1 0 0	240,00[illegible]	—	120, Bishopsgate st.
Champ d'Or..... *G*	2⅛ 2¾	2⅛ 2¾	1 0	4/- Jan. 31 '95	1 0 0	116,016	Rand	8, Old Jewry, E.C.
Charterland G.F ...	1 1/16 1 3/16	9/16 1 1/16	1 0	—	1 0 0	150,000	—	2, Salter's Hall Court
Chimes West	1½ 1⅝	1⅛ 1⅜	1 0	—	1 0 0	150,000	—	8, Old Jewry, E C.
City and Sub.NwG	4⅛ 4¾	4¼ 4⅜	4 0	10/-June'95	4 0 0	340,000	Rand	96, Gresham Ho.,E.C
Coetzeestroom ...*G*	5/ 6/	5/ 6/	5/-	—	0 5 0	140,000	De Kaap	105,Leadenhall-street
Con, Bultfontein *D*	30/ 31/	30/ 31/	1 0	3¾ ⅞ Sept. '94	1 0 0	721,500	Griqualnd	62, Lombard-st.
Con. Deep Levels*G*	4¼ 4¾	4⅛ 5	1 0	4/- Jy 11 '95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	10⅞ 11⅛	10⅞ 11⅛	1 0	20/ Nov. 14 '95	1 0 0	,250,00	S. Africa	8, Old Jewry.
Do. 6 ⅞ Pref.	24/ 25/	24/ 25/	1 0	7 1-5d June'95	1 0 0	1,243,999	,,	,,
Do. 5½ ⅞ Deben...	111⅛ 112⅛	111⅛ 112⅛	5 0	5⅛ Oct, '95	5 0 0	6.0,000	,,	,,
Crescent-Matabele	5 6	5 6	—	—	—	—	—	—
Crown Deep .....*G*	8 9	8½ 9½	1 0	—	1 0 0	250,000	Rand	120, Bishopsgate-st.
,, Reef .. ..*G*	9⅞ 10⅛	10⅛ 10⅜	1 0	5/- Jy 11 '95	1 0 0	120,000	,,	,,
DeBeer's Consol, *D*	23⅜ 23⅝	24⅛ 24⅜	5 0	12/6 Jy 11 '95	5 0 0	789,791	Kimberl'y	62, Lombard-street.
Do. 5 ⅞ 1st Deb....	108 109	108½ 109⅛	—	5 ⅞ Jy 11, '95	—	£3,800000	,,	,,
Do. 5½ ⅞ Bul. Ob.	104½ 105⅜	104½ 105⅛	—	5½ ⅞ Oct. 95	—	720,000	,,	,,
Doornkop	3/- 4/-	3/6 4/6	1 0	—	1 0 0	250,000	Doornkop	Warnford Court
Driefontein	1⅝ 1⅞	1⅞ 2⅛	1 0	—	1 0 0	175,000	—	Winchester Ho,
Durban Roodept..*G*	7⅛ 7⅜	7¼ 7½xd	1 0	3/- Dec, 16 '95	1 0 0	£125,000	Rand	23, Leadenhall-bldgs
,, Deep.....	3⅛ 3⅜	4 4¼	—	—	—	—	—	—
Eagle's Nest..... *G*	⅛ ⅜ pm	⅛ ⅜pm	—	—	0 5 0	30,000	Barberton	54, St. Mary Axe.
Eastleigh .....*G*	15/16 1 5/16	15/16 1 5/16	1 0	—	1 0 0	240,000	Klerksdrp	Winchester House,
East Orion..... ...	5/16 7/16	5/16 7/16	1 0	—	1 0 0	275,000	Rand	8, O d Jewry.
,, Rand..... *G*	4¼ 4⅞	4 9/16 4 11/16	1 0	—	1 0 0	570,000	Rand	170, Winchester-ho.
,, ,, Central	2⅛ 2⅜	2 2⅛	1 0	—	1 0 0	152,500	E. Rand	120, Bishopsgate st.
Evelyn .....*G*	1 1⅛	— 1⅛	1 0	10⅞ Jan. '89	1 0 0	60,000	—	28, Old Jewry, E.C.
Exploration	3 3½	3 3½	1 0	1/- Dec. 28 '94	1 0 0	142,000	S. Africa	30, S. Swithin's-ln.[
Exploring L & M...	1 1/16 1 1/8	1⅜ 1 3/16xd	1 0	2/ Dec. 16, '95	1 0 0	215,215	,,	19, ,,
Ferreira .....*G*	15/16 16/16	16 17	1 0	13/ Jy 25'95	1 0 0	45,000	Rand	120,Bishopsgt st.Wn[
Forbes Reef(Nw)*G*	¼ ¼	¼ ¼	1 0	—	1 0 0	105,000	De Kaap	45-6, Leadenhall-st.
Geldenhuis Deep*G*	5½ 6	5¾ 6¼	1 0	—	1 0 0	265,000	Transvaal.	30,St. Swithin's-lane.
Geldenhuis Est. *G*	3⅞ 4⅛	4⅛ 4⅜	1 0	6/- Jy 25 '95	1 0 0	187,500	Rand	120,Bishopsgt st. Wn[
,, Main Reef	1 1/16 1 3/16	1 1/16 1 1/8	1 0	10⅞ Dec, 95	1 0 0	150,000	,,	Warnford Court, E.C
,, Gooh ...*G*	2 5/16 2 7/16	2 5/16 2 7/16	1 0	—	1 0 0	100,000	,,	Johannesburg.
Ginsberg .....*G*	⅞ 1	⅞ 1	1 0	—	1 0 0	130,000	Drietfon .	Warnford Court,E.C[
Glencairn .....*G*	3 1/16 3 1/8	3 1/16 3 1/8	1 0	12½ ⅞ Dec. '95	1 0 0	200,000	Rand	2, Drapers-gardens.
Gold Coast Devel.	1/- 8/-	2/ 8/	—	—	—	—	—	11, Queen Victoria-st
,, Estates T...*G*	⅛ ⅜	⅛ ⅜	1 0	15⅞ Dec.'89	0 15 0	130,000	Transvaal.	46, ,,
Gld. Fls. Deep...*G*	6⅛ 6¾	6½ 6¾	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G.F. of Lydenb'rg	2 3	2½ 3	1 0	—	—	—	Lydenb'rg	7, Lothbury.
G. F. of Mashonld.	⅛ ⅛	⅜ ⅛	1 0	—	1 0 0	200,000	Mashonld.	19, St. Swithin's-ln.
Graskop .....*G*	5/3 5/9	5/6 6/	5/-	2½ ⅞ Mar. '92.	0 5 0	400,000	Lydenburg	2, Tokenhouse Bldgs
Griqualand W....*D*	8 8¾	8 8¼	10 0	2 ⅞ Sept, '94	10 0 0	105,700	Transvaal .	62, Lombard-street
Guy Fawkes..... *G*	1¼ 1⅜	1½ 1¾	10/-	—	0 10 0	24,000	Manica.....	Broad-st. Avenue
Gwelo Exploratn.	2/6 3/	2/ 3/	1 0	—	0 10 0	—	Matabeleld	18, Bishopsgate st.
Harmony (Pref) *G*	4/6 5/6	4/8 5/6	1 0	—	1 0 0	260,000	—	79½, Gracechurch-st.
Heidelbg. Est. Ex:	1¼ 1½	1¼ 1⅝	1 0	—	—	—	Heildelbg .	,,
,, Gold ...	1 5/16 1 5/16	1 5/16 1 5/16	1 0	—	1 0 0	500,000	,,	32, Gt. St. Helen's.
Henderson's Trans	2 1/16 2 3/16	2 2⅛	1 0	—	1 0 0	220,000	Zoutpanbg	85, Gracechurch st,
Henry Nourse ...*G*	4¾ 5	5¼ 5½	1 0	—	1 0 0	100,000	De Kaap ...	Warn ord-court.
Hetty	1 5/16 1 3/16	1 1/16 1 3/16	1 0	—	1 0 0	110, 00	Middlevel.	55, Bishopsgate st Wn
Joe's Reef ..... *G*	5/16 7/16	5/16 7/16	1 0	—	1 0 0	57,464	,,	21, Mincing Lane.
Johannesburg G.F	7/- 9/-	7/ 8/	1 0	—	1 0 0	99,537	Johanburg	31, Lombard-st., E.C.
,, Invest.	3 1/16 3 3/16	3 1/16 3 3/16	1 0	20⅞ Oct. '95	1 0 0	650,000	—	7, Lothbury.
Johannesburg Par	9 9¼	9 9¼	1 0	12½ ⅞ Nov.,'93	1 0 0	21,000	Rand.....	Johannesburg.
Jubilee ..... *G*	8 8¼	8 8¼	1 0	6/ Nov. 28 '95	1 0 0	30,000	,,	8, Old Jewry.†
Jumpers .....*G*	7 7¼	7¼ 7½	1 0	25 ⅞ Aug 29 '95	1 0 0	100,000	,,	120, Bishopsgt st, Wn[
Kimberley .. ..*D*	¾ ⅞ pm	¾ ⅞ pm	1 0	2/ Dec. '95	0 10 0	95,672	Kimberley	19, Finsbury circus.
,, Rdpt....	1½ 2	1½ 2	1 0	—	1 0 0	125,806	,,	2, Drapers-gardens.
Klerksdorp	11/6 12/6	11/ 12/	10/-	—	1 0 0	400,0 0	Klerksdorp	2, Drapers-gardens.
Koffyfontein.....*D*	¾ ⅞	¾ ⅞	1 0	—	1 0 0	125,000	Jacobsdaal	6, Gt. St. Helen's.
Lancaster	1⅜ 1½	1⅜ 1½	1 0	—	1 0 0	226,500	Luip. Vlei	120, Bishopsgt st. Wn
Langlaagte Est. *G*	5½ 5⅜	5¼ 5½	1 0	5/- Jy 11 '95	1 0 0	470,000	Rand.....	59, Holborn Viaduct
Do, Royal	1¾ 1⅞	1 13/16 1 15/16	1 0	rts. Mar. 8 '95	1 0 0	100,000	,,	2, Drapers-gardens.
Do. Star...	2 2¼	1⅞ 2⅛	1 0	—	1 0 0	170,000	,,	,,
Lionsdale	4/6 5/6	4/3 4/9	1 0	—	1 0 0	115,000	Lydenburg	85, Gracechurch-st.
Lisbon-Berlyn ...*G*	5/3 5/9	6/ 6/6	2/6	—	0 14 6	68[illegible]233	,,	Suffolk House,
Lo Magunda..... ...	2¾ 3¼	2¾ 3¼	1 0	—	1 0 0	120,000	—	8, Old Jewry
Lon.Paris Fin & M.	1 5/16 1 1/16	1 1½	1 0	—	1 0 0	500,000	—	53, Old Broad Street.
London & S. A. Ex.	12¾ 13¼	13¼ 13¾	10/	4/- Dec. 27 '95	0 10 0	100,000	S. Africa ...	19, Finsbury-circus.
Lower Roodepoort	1/6 2/6	1/6 2/	1 0	—	1 0 0	150,000	Vlakfontn	8, Old Jewry, E.C.
Luipaards Vlei Est.	11/16 13/16	13/16 15/16	1 0	6 ⅞ Mar, '90	1 0 0	319,093	Rand.....	Warnford-court.[
Lydenburg Est. ...	1 1/16 1 3/16	1⅛ 1⅜	1 0	—	—	—	—	—
Main Reef (New)*G*	1 5/16 1 1/16	1 5/16 1 1/16	1 0	—	1 0 0	111,500	Rand.....	15, George St., MnH
Marie Louise.....	2¾ 3	2¾ 3	1 0	—	1 0 0	60,000	,,	,,
Marievale Nigel ...	¾ 1⅜	¾ 1⅛	1 0	—	1 0 0	250,000	,,	,,
Mashon. Agency...	2 2⅛	2 1/16 2 3/16	1 0	—	1 0 0	100 000	Mashonald	8, Old Jewry, E.C.
,, Central ...	1 1⅛	1 1⅛	1 0	—	—	180,000	,,	,,
Massi Kessi	9/6 10/6	9/6 10/6	10/	—	0 7 0	60 000	Manica	Broad Street Avenue
Matabeleí'd G. R't	3¾ 4	3¾ 4	1 0	—	1 0 0	110,000	Matabeleí'd	3, Copthall-buildings.
May Con. (New) *G*	2¾ 2⅞	2¾ 2⅞	1 0	2/- Oct 30 '95	1 0 0	236,500	Rand.....	4, Lothbury.[
Meyer & Charl....*G*	5½ 5¾	1⅝ 1¾	1 0	—	1 0 0	75,020	,,	1, Crosby Square.[
Middleburg Consl...	4/6 5/6	4/6 5/6	—	—	—	—	—	—
Middle Vlei	1 1⅛	1 1¼	—	—	—	—	—	—
Minerva.....	1⅝ 1⅞	1¾ 1⅞	—	—	1 0 0	150,000	Rand.....	Winchester House.
Modderfontein.. *G*	7½ 7¾	7⅝ 7⅞	1 0	—	1 0 0	200,000	,,	Warnford-court.[
,, "B" Extensn.	1¾ 2	1⅞ 2⅛	—	—	—	—	—	—
Molyneux Consoll.	1 1⅛	1⅛ 1⅜	1 0	—	1 0 0	220,000	Modderftn	120, Bishopsgate st
Momtrose..... *G*	⅛ ⅜	¾ ⅞	1 0	3/- Feb, '90	1 0 0	70,000	De Kaap ...	65, New Broad-street
Moodies G.&E,...*G*	1 1/16 1 3/16	⅛ ⅜	1 0	-/4 May '90	1 0 0	240,000	—	8, Old Jewry.[
Mozambique.....	1 1⅛	1 1/16 1 1/8	1 0	—	1 0 0	400,000	S N. Africa	13, Austin Friars.
Namaqua .....*C*	1 1⅛	1 1¼	2 0	2/6 July '91	2 0 0	94,331	Namaquald	34, Leadenhall-bldg.
New African	4¼ 4⅝	4½ 4⅝	1 0	—	1 0 0	190,000	—	83, Hatton Garden.
N.Belgium Land...	11/8 12/8	11/ 12/	1 0	—	0 17 0	167,462	Waterberg.	53, Cornhill.
New Chimes..... *G*	2 2¼	2 2	1 0	15 p c Aug. '95	1 0 0	100,000	Rand.....	8, Old Jewry, E.C
,, Clewer Estate	1¾ 2	1¾ 2	1 0	10⅞ Feb.'95 '95	1 0 0	100,000	Heidelburg	120, Bishopsgt st. Wn[
,, Comet	2¼ 2⅜	2½ 2⅝	1 0	—	1 0 0	175,000	Heidelburg	Winchester House.
,, Croesus..... *G*	1½ 1⅝	1⅝ 1 11/16	1 0	rts Apr 17 '95	1 0 0	255,000	Langlaagte	120, Bishopsgt.st.Wn
,, Gordon..... *D*	5/ 5/6	5/6 6/	1 0	5 ⅞ Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
,, Heriot ..... *G*	8 8¼	7⅞ 8⅛	1 0	25 pc., Dec.,'95	1 0 0	83,750	Rand.....	96, Gresham Ho EC
,, Jagersf. ....*D*	8¾ 8⅞	8½ 8¾	5 0	10/ Oct. 16 '95	5 0 0	100,000	Transvaal .	5, Copthall-buildings
,, Kleinfontein*G*	3¼ 3⅜	3⅛ 3¼	1 0	12½pc Mar,'95	1 0 0	82,500	Rand.....	Winchester House
,, Louis D'Or... *G*	1/6 2/6	1/6 2/6	1 0	—	1 0 0	—	,,	53, New Broad-street
,, Midas	2 3¼	3¼ 3⅜	1 0	—	1 0 0	150,000	Mid'le Vlei	120, Bishopsgt-st, W.
,, Primrose ...*G*	6¼ 6⅝	6 6¼	1 0	25pc.Dec,'95	1 0 0	278,750	Rand.....	2, Draper's-gardens.
,, Rand.....	1 1/16 1 1/8 pm	1 1/16 1 1/8 pm	1 0	—	1 0 0	110,000	,,	Bartholomew-house
,, Rietfontein*G*	2⅝ 2¾	2⅛ 2⅜	1 0	—	1 0 0	160,000	,,	Warnford-ct., E.C.
,, Augustine *D*	7/ 7/6	7/ 8/	1 0	—	0 19 6	299,137	Griqu'ld W	30-1, St. Swithin's-ln
,, Spes Bona...*G*	1⅝ 1⅜	1⅜ 1⅝	1 0	—	1 0 0	113,701	Rand.....	24, N. John-st., L'p'l
,, Steyn Estate	1¼ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	125,000	Heidelberg	19, Bury Street. E.C.
,, Virginia ... *G*	1/8 2/8	1/8 2/8	10/	—	0 10 0	49,335	Transvaal .	26, Budge-row, E. C.

AFRICAN MINES—(*Continued*).

Name.	Closing Price, Dec. 27, 1895	Closing Price, Dec. 20, 1895.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Nigel ..... *G*	3⅝ 3⅞	3⅞ 4⅛	1 0	rts Aug 10 '95	1 0 0	160,000	Rand.....	96, Gresham Ho., EC
,, Deep .....*G*	1⅞ 2	2 2⅛	1 0	—	1 0 0	195,000	Heidelberg	8, Old Jewry.
,, Extension ...	5/- 5/6	5/ 5/6	10/-	10⅞ June '95	0 10 0	160,000	Rand.....	Basing House, E.C.
North Randfontn.	1½ 1¾	1⅝ 1⅞	—	—	—	—	—	—
,, Sheba	6/- 6/6	6/ 6/6	1 0	—	1 0 0	200,000	—	38, London Wall.
Nourse Deep.....	3¼ 4⅛	4 4⅛	1 0	—	1 0 0	375,000	Rand.....	120,Bishopgt.-st., Wn
Oceana	1 9/16 1 11/16	1 9/16 1 11/16	1 0	2/-Nov. 28 '95	1 0 0	357,400	Transvaal .	12, Austin Friars.
,, Develpmnt	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	50,000	,,	,,
,, Minerals ...	9/16 11/16	11/16 13/16	1 0	—	1 0 0	—	—	—
Ophir Concess. ...	3/6 4/6	3/ 4/	1 0	—	0 18 6	111,857	E. C.Africa	31, Lombard-street,
Orange F.S.E. ...*D*	3 3½	3 3½	1 0	10⅞ Aug., 95	1 0 0	284,000	OrangeF.S.	10, Moorgate-street.
Orion (New).....*G*	2⅞ 3⅛	3¼ 3⅜	1 0	10⅞ Aug, '95	1 0 0	30,000	Rand.....	8, Old Jewry.
Otto's Kopje.....*D*	1/8 2/-	1/8 2/	1 0	—	1 0 0	437,888	Kimberley	113, Cannon-st., E.C.
Paarl Central ... *G*	1 1/16 1 1/16	1⅛ 1¼	1 0	—	1 0 0	138,750	Transvaal .	120,Bishopsgt st,Wn.
Pardy's Mozambq.	1⅞ 2⅛	2 2¼	10/	3/- Jy 11 '95	0 10 0	13,000	S.E. Africa	Broad St. Avenue.
,, Range	5/16 5/16	5/16 5/16	10/	—	£1 0 0	—	Manica.....	Broad Street Avenue
Piggs Peak ..... *G*	5/16 5/16	7/16 9/16	1 0	—	0 17 0	200,000	Swaziland .	6, Queen-street-place
,, Peak ..... *G*	7/16 9/16	3/8 ½	1 0	—	1 0 0	60,652	,,	,,
Pielades.....	⅜ ½	⅜ ½	1 0	—	1 0 0	140,000	Black Reef	
Porges Randfontn.	1¾ 2	2½ 2⅝	—	—	—	—	—	—
Potchefstroom... *G*	7/16 9/16	¼ 9/16	1 0	—	1 0 0	389,750	Potchefstm	19, Bury-st., E.C.
Princess Estate *G*	2 11/16 2 13/16	3 15/16 3 1/16	1 0	—	1 0 0	125,000	Rand.....	33, Cornhill, E.C.
Rand Central Ore	2⅛ 2⅜	2½ 2⅝	1 0	25 p c Aug. 95	1 0 0	115,000	—	8, Princes-street, E.C.
Randfontein .....*G*	2 5/16 2 7/16	2⅜ 2½	1 0	—	1 0 0	2,000,000	Rand.....	59, Holborn Viaduct.
Rand Mines ..... *G*	22 22½	23¼ 23¼	1 0	—	1 0 0	332,708	,,	120, Bishopsgt st. Wn[
Rand-Rhodesia Ex	1¾ 1⅝	1⅜ 1⅝	1 0	10 p.c. Oct, '95	1 0 0	25,000	R&Rhodesa	123, ,,
Read's Drift .....*D*	2½ 2¾	2½ 2¾	1 0	—	1 0 0	37,000	Transvaal .	19, Finsbury-circus.
Rhodesia Ex & Dv.	5½ 6⅛	6 7	1 0	—	1 0 0	50,000	Mt &Mash'l	8, Old Jewry.
,, Gold Reefs	— —	— —	1 0	—	1 0 0	35,0 0	Rhodesia..	22, Leadenhall street
Robinson(SA)Bank	4⅛ 5⅛	5 6	4 0	—	4 0 0	720,000	—	8, Prince's-street
,, Deep.....	5 7	6½ 7¼	1 0	—	1 0 0	500,000	M'nR'R'nd	120, Bishopsgate st.
,, Diamond	1¼ 2	1½ 2	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's street
,, Gold.....	9 9½	9½ 9⅜	1 0	6/- Jy 28 '95	5 0 0	550,000	M. Rf.'rand	28, Austin Friars, E.C
,, Randftn.	11/16 13/16	11/16 13/16	5 0	5s. Nov 15 '95	1 0 0	517,000	Rand.....	8, Prince's-street.
Roodepoort Deep	2⅜ 3½	2⅜ 2⅞	1 0	—	1 0 0	170,000	,,	8, Old Jewry, E.C.
Roodepoort Un. *G*	4⅞ 5⅝	5½ 5¾	1 0	6/ Aug 14 '95	1 0 0	130,000	Rand.....	Warnford-court,[
Rose Deep.....	3 4	4 4½	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S.Swltn's. lane.
Rosenblock Tw'Rfs	⅞ 1	⅞ 1	1 0	—	1 0 0	60,000	Krugersdp	4, Tokenhouse bldgs
Rothery Block.....	1 1/16 1 1/16	¾ ⅞	1 0	—	—	—	—	55, Bishopsgate st.
St. Angelo	2¾ 3	2⅞ 3⅛	1 0	—	1 0 0	175,000	—	Winchester House,
Salisbury Gold ...	3¼ 3½	3⅜ 3⅝	1 0	—	1 0 0	99,000	Rand.....	96, Gresham Ho., EC
Sheba .....*G*	17/16 1

"THE MINING JOURNAL" SHARE LIST—(Continued)

AUSTRALIAN AND NEW ZEALAND MINES—(*Continued*).

Name.	Closing Price, Dec.27, 1895	Closing Price, Dec. 20, 1895.	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
W. A. General.....	4¼ 4¾ pm	4¼ 5 pm.	1 0	—	0 14 0	—	W. Austral	28, St. Swithin's-in
„ Australian G.F.	5½ 5¾	5⅝ 5¾xd	1 0	4/- Dec 16 '95	1 0 0	65,000	Coolgardie	28-29, „
„ Aust. Mining	7/ 8/	7/ 8/-	1 0	/5 Oct 16 '95	1 0 0	104,141	W. Austral	257, Winchester Ho,
„ Aust. Pioneer.	1⅛ 1¾ pm	1½ 1¾ pm	1 0	rts Oct 19 '95	0 15 0	19,993	„	139, Cannon-street,
„ „ Share Corp.	⅜ ⅝ pm	⅜ ⅝ pm	1 0	—	0 5 0	200,000	„	28, St. Swithin's in
„ „ Trust	⅜ ⅝ dis	⅜ ⅝ dis	1 0	—	1 0 0	50,000	„	54, Old Broad Street
„ „ Venture.....	2 3 pm	2 3 pm	1 0	15/ Oct. 30 '95	1 0 0	—	„	2, Princes Street.
West Boulder	⅞ 1⅛	⅞ 1⅛	—	—	—	—	—	
Westralia	¾ 1	¾ 1	1 0	—	1 0 0	—	—	Winchester House.
White Feather ...	2⅛ 2¼	2¾ 2¼	1 0	—	0 5 0	60,000	Coolgardie	28 & 29, S. Swithin's in
„ „ United	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	75,000	„	139, Cannon-street
Whitehe'd&Sultan	¼ dis par	⅛ dis par	1 0	—	0 5 0	150,000	„	13, Abchurch-lane.
Zapopan.....*G*	3/6 4/6	3/6 4/6	1 0	—	1 0 0	25,000	N W Austra	70, Bishopsgate-street
Zeehan Montana *S*	— —	— —	1 0	-/4 Dec. 95	1 0 0	66,000	Tasmania	11, Queen Victoria st
„ ...	— —	— —	1 0	2½ Dec. 95	0 2 6	12,000	„	„

NORTH AMERICAN MINES.

Alaska Mexican...*G*	1½ 1¾	1½ 1¾	$5	7 1-5d. July,'95	$5	160,000	Alaska.....	30, St. Swithin's-in
„ Treadwell*G*	5¼ 5¾	5¼ 5¾	$25	1/6 July, '95	$25	200,000	„	„
Almada and T...*S*	/9 1/	-/9 1/	2/6	—	0 2 0	351,006	Mexico ...	6, Queen-street-place
American Belle...*S*	1/3 1/9	1/0 1/6	1 0	-/6 Mar. '91	1 0 0	398,890	Colorado	25A, Old Broad-street
Anglo Mexican ...*S*	16/ 18/	16/ 18/	5 0	2/- Dec. 95	5 0 0	74,850	Mexico ...	23, College Hill.
Arizona (Pref.) Cu	39/6 40/6	43/0 43/3	4 0	1/- Aug. '95	4 0 0	158,920	Arizona ...	74, Geo.-st., Edinbor
„ 6½ A Deben.	105 106	106	100 0	6½ % Oct.30'95	100 0 0	£135,300	„	„
„ 7% B Deben.	93¼	93¼	100 0	7% Oct. 30 '95	100 0 0	£181,300	„	„
De Lamar.....*GS*	18/ 19/	15/16 1	1 0	1/- Oct. 30 '95	1 0 0	400,000	Idaho.....	6, Drapers-gardens,
Dickens Custer*GS*	1/3 1/9	1/3 1/9	1 0	—	0 19 9	420,000	„	Winchester Ho. E.C.
Doric.....*G*	2/ 2/6	2/ 2/6	5/	—	0 5 0	125,000	Colorado...	
Elkhorn Priority *S*	par ¼ pm	par ½ pm,	1 0	-/3 June 26 '86	0 10 0	175,007	Montana	6, Draper's-gardens.
Emma .....*S*	-/6 1/-	-/6 1/-	5/	—	0 5 0	403,618	Utah	15, Geo-st, Mansn. Ho
Geo. M'g. Assoc. ...	6⅛ 7	6⅛ 7	5 10	14/- Apr. 95	5 10 0	27,469	C. Breton	Bloomfield House
Golden Feather *G*	4/6 5/6	4/6 5/6	1 0	—	1 0 0	180,000	California	S. Stephens Ca E.C.
„ Gate .....*G*	3/ 4/	3/ 4/	1 0	—	0 19 6	79,600	„	„
„ Leaf.....*G*	1/6 2/	1/6 2/	1 0	—	1 0 0	300,259	ontana	8, Draper's Gardens
Harquahala.... *G*	5/9 6/3	6/3 6/9	1 0	-/6 Nov.14,'94	1 0 0	300,000	Arizona ..	6, Draper's Gardens.
Holcomb Valley *G*	/6 1/	-/9 1/3	5/	—	0 5 0	540,000	California	14, Cornhill, E.C.
Jackson Goldfields	/6 1/-	1/ 1/6	5 0	—	0 5 0	408,635	California	11, Poultry, E.C.
Jay Hawk (New)*G*	/9 1/-	-/9 1/	1 0	-/6 Dec. '92	0 19 3	285,000	Montana	Dashwood House,
La Plata.....*S*	1/3 1/9	1/3 1/9	5/	1/3 Oct. '82	0 4 6	405,000	Colorado	11, Poultry, E.C.
La Yesca .....*GS*	1/8 2/-	1/9 2/3	1 0	—	0 19 6	200,000	Mexico ..	20, Bucklersbury, EC
Mammoth Gold ...	1/ 1/6	— —	1 0	—	1 0 0	400,000	Pnal, Ariz.	257, Winchester Ho.
Mesq. d'l Oro (P) *G*	— —	— —	5 0	—	5 0 0	10,000	Mexico ...	Dashwood Ho., E.C.
„ (D)*G*	— —	— —	5 0	—	5 0 0	10,000	„	„
Montana ..... *GS*	7/3 7/9	7/3 7/9	1 0	-/3 Sep. 27, '95	0 19 0	657,158	Montana	Gresham House, E.C.
New Colorado ...*S*	— —	— —	1 0	—	0 19 6	34,503	Colorado	S. Geo. Ho., E'cheap
„ Gold Hill...*G*	— —	— —	1 0	—	0 19 9	191,045	N Carolina	15, George-st., E.C.
„ Guston .....*S*	¼ ½	¼ ½	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25A, Old Broad-st.
„ Hoover Hill*G*	-/6 1/-	-/6 1/-	10/	-/9 Dec. '95	0 10 0	120,000	N Carolina	Langthorne Ho., E.C
Palmarejo .....*GS*	1/ 1/6	1/ 1/6	1 0	—	1 0 0	418,888	Mexico ...	32, Old Jewry, E.C.
Parral Cons. ...*GS*	⅜ ⅝	⅛ ¼	1 0	—	1 0 0	121,047	„	Palmerston Bldgs., EC
Pinos Altos(Df)*GS*	⅛ ⅜	⅛ ⅜	1 0	-/6 Mar.' 90	1 0 0	100,000	„	110, Cannon-street.
„ 15% Cum Pref	⅛ ⅞	⅜ 1	1 0	—	1 0 0	60,000	„	„
Richmond ...*GSL*	⅝ ¾	⅝ ¾xd	5 0	1/- Dec. 16 '95	5 0 0	54,000	Nevada ...	44, Coleman-street.
St. George.....	1/6 2/6	1/6 2/6	5/	—	0 4 9	—	G'o'giaUSA	58, Lombard-street.
Sierra Butter ...*G*	7/16 9/16	7/16 9/16	2 0	-/6 Oct. 30 '95	2 0 0	122,500	California	138, Leadenhall-st.
Do. Plumas Eur. *G*	⅝ ¾	⅝ ¾	2 0	-/9 Oct. 30 '95	2 0 0	140,265	„	„
Springdale.....*G*	1/3 1/9	1/3 1/9	$1	-/2 Sep. 26, 95	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1¼ 1⅜	1¼ 1⅜	0	3/- Feb. '95	1 0 0	26,000	„	5, Lawrence P. Hl.E.C

SOUTH AND CENTRAL AMERICAN MINES.

Anglo-Chilian Pf*N*	8 8½	8 8½	10 0	13/11 1-5 Jun 95	10 0 0	35,000	Antofagst.	123, Bishops,-st. W,
„ 6% Ryl stMB	106 108	106 108	100 0	6% July, '95	100 0 0	£200,000	Antofagst.	„
Antio. (Pref.) *G.S.*	— —	— —	1 0	-/6 Mar. '90	0 0 0	22,823	Colombia	184, Gresham Ho.
Antioquia (ordiny)	— —	— —	1 0	—	0 0 0	42,453	„	184, Gresham Ho.
B. Guiana Prosp.	— —	— —	—	25% Oct. 95	—	—	Brit. Guan	
Caratal..... *G*	-/9 1/3	-/9 1/3	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Cayllema.....*S*	— —	— —	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon ..... *G*	-/9 1/3	-/9 1/3	5/	—	0 4 0	200,000	Colombia	8, Copthall-bdgs., E.C
Colorado Nit. ...*N*	1 1⅛	1⅛ 1¾xd	5 0	2/6 Dec. 16, '95	5 0 0	32,000	Chili	17, King-st., Liverp'l
Colombia..... *G*	— —	— —	20 0	10 frs. Aug. 94	1 0 0	—	Venezuela	Ciudad Bolivar.
Colombian Bly...*G*	7/16 9/16	7/16 9/16	1 0	1/- Jy 26, '95	1 0 0	75,000	Colombia	11, Bloomfield-street
Copiapo .....*C*	1⅞ 2⅛	1⅞ 2⅛xd	2 0	2/6 Dec. 16 '95	2 0 0	100,000	Chili	Dashwood House, E.C
Darien "A" .....*G*	4⅜ 4⅝	4¼ 4⅜	1 0	—	1 0 0	49,553	Colombia	Manchester.
„ "B"	6¾ 7	6¾ 7	1 0	—	1 0 0	30,000	„	„
Don Pedro.....*G*	1/ 2/	1/ 2/	1 0	—	1 0 0	133,102	Brazil	24-5, Devonsh, Cs E.C
El Callao .....*G*	⅛ ⅜	⅛ ⅜	5 0	9½d. Feb. '94	5 0 0	257,000	Venezuela	8, Bisl-opsgt.-st. Wn
Frontino & B ...*G*	1¼ 1⅝	1⅜ 1½	1 0	6d. Oct. 16 '95	1 0 0	128,662	Colombia	184, Gresham House
Glenrock ..... *G*	1/9 2/3	1/9 2/3	1 0	—	1 0 0	199,998	Arg. (& I.)	3-5, Queen-street, E.C
Gravel.....*G*	2/ 3/	2/- 3/-	1 0	—	0 16 6	100,000	Colombia	10, Bloomfield-street
Guadalupe .....*GS*	3/6 5/	3/6 5/-	1 0	—	1 0 0	120,000	Honduras	1A, Union ct. Old Brd
Huanchaca .....*S*	— —	— —	5 0	4/- Sept. '94	5 0 0	320,000	Bolivia ...	10, Avnu. d'Alma, Paris
Javali ....*G*	— —	— —	2/	8½ % '91	0 2 0	105,234	Nicaragua	139, Cannon-street.
Julia Taltal .....*N*	1/16 3/16	1/16 3/16	1 0	—	1 0 0	200,000	Chili	7½, Gracechurch-st.
Lagunas ....*N*	2¼ 2¾	2¼ 2¼	5 0	15p.c. Dec.'94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro .....*N*	4¾ 5¼	5 6⅛	5 0	7/6 June 95	5 0 0	140,000	Chili	70, „
Liverpool .....*N*	8 9	8 9xd	5 0	15/-Dec16, 95	5 0 0	22,000	„	Liverpool.
Loma .....*G*	/9 1/3	-/9 1/3	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building
London Nit.....*N*	1½ 2	1½ 2	3 0	3/4½ Nov. '86	5 0 0	40,000	Chili	9, Gracechurch-st
„ Nit.(Pref.)	2½ 3⅛	2½ 3⅛	5 0	8% Nov. 25'95	5 0 0	22,000	„	„
Macate	1/6 2/	1/9 2/3	2/	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C
New Tamarugal *N*	1/16 3/16	1/16 3/16	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
„ 5 % Cum Pref	5/16 1/16	5/16 1/16	1 10	8 p.c. Feb. '95	1 10 0	130,000	„	„
„ 6 p.c. Debs ...	72 76	73 77	100 0	6 p.c. Aug. '95	100 0 0	£260,000	„	„
Orita..... .....*G*	1/3 1/9	1/3 1/9	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Bloomfield-street.
Ouro Preto ..... *G*	— —	— —	1 0	1/- Aug. '95	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jaspampa *N*	1½ 2	1½ 2	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Primitiva ..... *N*	⅜ ⅝	⅜ ⅝	5 0	20% Oct. '89	5 0 0	40,000	Chili	Liverpool.
Quebrada ..... *C*	⅛ ⅜	⅛ ⅜	3 0	5% Mar. '92	3 0 0	241,956	Venezuela	38, N cholas Lane.
Rosario ..... *N*	4¼ 4¾	4¼ 4¾	5 0	5/-Aug.14 '95	5 0 0	120,000	Chili	57½, Old Broad-street
„ (5% Deb.)	104 107	104 107	100 0	5% Oct. 1 '95	100 0 0	£275,000	„	„
Do. Huara Deb Scrp	104 107	104 107	100 0	5% July 1 '95	100 0 0	£200,000	„	„
St. John del Rey *G*	1⅞ 1⅞	1⅞ 1⅞	1 0	x.rts Nov 19 '95	1 0 0	327,650	Brazil	Finsby, Ho, Bimf'd st
San Donato .... *N*	¾ 1⅛	¾ 1⅛	5 0	2/6 May 24 '95	5 0 0	32,000	Chili	12, King-st., Liverp
„ Jorge .....*N*	4¾ 5¼	4¾ 5¼	—	5/ Oct. 16 '95	5 0 0	75,000	„	9, Gracechurch-st.
„ Pablo .....*N*	1¾ 2	1¾ 2	—	5/ Oct. 30 '95	5 0 0	32,000	„	„
„ Sebastian ...*N*	1⅜ 1⅝	1⅜ 1⅜	5 0	5/ May 24 '95	5 0 0	29,000	„	Dashwood HoouseEC
Santa Barbara ...*G*	— —	— —	10/	1/3 Dec. '86	0 10 0	80,000	Brazil	Liverpool
„ Elena .....*N*	¼ ⅛	¼ ⅛	5 0	5/-Nov. 15 '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st
„ Rita .....*N*	2⅛ 3	2⅛ 3	5 0	10/May 24 '95	5 0 0	20,000	Chili ...	Dashwood House, E.C
Segovia .....*G*	— —	— —	5/-	—	0 5 0	120,000	Colombia	5, Copthal-building
Snore Pref.....*G*	— —	— —	1 0	10% July '95	0 15 0	840	„	23, St. Swithin's in.
„ Ord.....*G*	— —	— —	1 0	10% July '95	1 0 0	10,000	„	„
Tolima "A" ..... *S*	7 7⅛	7 7⅛	5 0	10/- Jy 11, '95	5 0 0	14,000	„	16, Finsbury-circus.
„ "B" .....*S*	5⅛ 6	6⅛ 6	5 0	10/- Jy 11, '95	5 0 0	6,000	„	„
Vic. & Altamira ...	/9 1/3	/9 1/3	5/	—	0 5 0	200,000	Venezuela	Broad-st. Avenue.
„ Pref.	/9 1/3	/6 1/-	—	—	—	—	—	
West Indian. ....*G*	— —	— —	1/	—	0 1 0	1,725,585	San. Dmgo	110, Cannon-street.

INDIAN AND ASIATIC MINES.

Balaghat Mysore*G*	2/3 2/9	2/3 2/9	1 0	—	0 19 6	159,945	India	5-7, Queen-street-pl
Burma Ruby.....*R*	12/6 15/-	12/6 15/-	1 0	—	0 18 0	298,551	Burmah...	Suffolk House E C.
Champion Reef...*G*	4 13/16 5 1/16	4 13/16 5 1/16	1 0	New Oct, 30 '95	1 0 0	200,000	India	5-7, Queen-street-pl.
Colar Central ...*G*	/6 1/6	1/- 1/6	1 0	—	1 0 0	200,000	„	Dashwood Ho., E.C.
Coromandel..... *G*	⅝ ¾	⅝ ¾	1 0	—	0 17 6	95,000	„	5-7, Queen-st.-place
Gold Fids Mysore*G*	18/ 19/	18/ 19/	1 0	1/- July '92	1 0 0	275,000	„	5-7, Queen-street
Hyderabad Dec. ..	3⅛ 3⅜	2⅞ 4⅛	5/	—	0 3 6	115,000	Deccan ...	16, St. Helen's-place
Kampinkote Gd Fd	1/3 1/9	1/6 2/	5/	—	0 3 6	750,000	India	6-7, Queen-st.-place.
Mysore ..... *G*	3 1/16 3 3/16	3⅛ 3¼	1 0	2/6 Oct. 30 '95	1 0 0	248,354	„	5-7 Queen-street pl.
My. Harnhalli ...*G*	1/ 1/6	1/- 1/6	1 0	—	0 18 0	160,007	„	5, East India Avenue
„ Reefs ...*G*	10/ 11/	10/ 11/-	1 0	—	1 0 0	160,000	„	6-7, Queen-street-pl.
„ West(N)*G*	1 5/16 1 6/16	1 5/16 1 6/16	1 0	—	0 19 0	127,402	„	5, Gt. Winchester St.
„ Wynnad *G*	1 1⅛	1 1/16 1 2/16	1 0	—	0 18 0	125,000	„	„
Nine Reefs	2/3 2/9	2/6 3/	10/	—	0 10 0	250,000	„	6-7, Queen-street- s.
Nundydroog.....*G*	1 15/16 1 15/16	1 15/16 1 15/16	1 0	1/6 Nov 14 '95	1 0 0	200,000	„	„
Oregum (Df.O.)*G*	2 5/16 2 5/16	2 5/16 2 5/16xd	1 0	3/- Dec. 16 '95	1 0 0	146,000	„	„
„ (12½ Pref.).	3⅜ 3¾	3⅜ 3¾xd	1 0	3/- Dec. 16 '95	1 0 0	107,011	„	„
„ (10 % Pref.).	3 3½	3 3½ xd	1 0	3/- Dec. 16 '95	0 5 0	12,989	„	„
Sabang Labang T	1/16 9/16	1/16 9/16	1 0	—	1 0 0	200,000	Malay Pn.	4a, Jeffrey's s . E.C
Scaife Developmt.	⅜ 1	⅜ ⅝	1 0	—	0 19 0	194,192	Pahang ...	15, Copthall Avenue
Tarakanda .....*G*	/6 1/6	— 2/	4/	—	0 2 6	167,401	Mysore ...	5-7, Queen-street-pl.

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, Dec.27, 1895.	Closing Price, Dec., 20, 1895.	Am't. of Share	When last XD and Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Abbotts .....*G*	5/16 9/16	3/8 ½	£1 0	—	£0 15 0	67,000	Mcrhison	17, Old Broad st.
Achilles Gld Fld.	1/6 2/	1/9 2/3	2/6	—	0 2 6	642,456	N.Zealand	11, Poultry.
Aladdins Lamp *G*	1⅛ 1⅜	1⅛ 1⅜	1 0	3/ Dec 16 '95	1 0 0	100,000	N S.Wales	4-8, Throg. Avenue.
Anglo-French Exp	¾ ⅞ pm	⅝ ⅞ pm	1 0	5/- Oct 30 '95	1 0 0	—	W. Austral	79, Queen Street.
Anglo-Ger.Explor.	¾ 1 pm	¾ 1 pm.	1 0	5/ Oct. 30 '95	1 0 0	99,000	„	„
Arrow Brownhill*G*	¾ 1	¾ 1	1 0	—	1 0 0	60,000	„	4, Gt. Winchester St.
Assoc. Gold Mines	1⅜ 1⅝	1⅜ 1⅝	1 0	—	1 0 0	375,000	Coolgardie	20, Bucklersbury
Austin.....*G*	1/16 2/16	1/16 2/16	1 0	-/4 Dec 28 '94	0 16 0	66,000	Murchison	23, College hill, EC
Australasian .....*G*	3/6 4/	3/6 4/	1 0	-/8 Mar., '92	1 0 0	210,000	Queensind	6, Queen-st, place
Australian .....*G*	—	—	20 0	-/9 Aug. '95	7 7 6	18,315	S. Austral.	15, Old Jewry Chbrs.
Aus. Bro. Hill Con.	1/3 1/9	1/3 1/9	1 0	1/- June, '91	1 0 0	522,708	N.S.Wales	Dashwood House.
Baker's Creek ...*G*	½ ¾	½ ¾	1 0	1/- May '95	0 17 6	140,000	N.S.Wales	Hillgrove, N.S.Wale.
Bardoc.....	¾ 1	¾ 1	1 0	—	1 0 0	—	W. Austral	43, Threadneedle st.
Bayley's Reward *G*	4/6 5/	5/ 6/	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'd St.
Big Blow .....*G*	7/16 9/16	7/16 9/16	1 0	—	1 0 0	145,000	„	151, Cannon Street.
Blackett's Claim *G*	⅛ ⅜	5/16 7/16	1 0	—	1 0 0	55,000	„	16, st. Helen's Place.
Black Flag...	9/16 11/16	5/16 7/16	1 0	—	1 0 0	140,000	„	1, Metal Exch, Bldgs
Blagroves Freehld	2/3 2/9	2/3 2/9	1 0	—	1 0 0	—	Acek. N.Z	Dashwood House.
Bonnie Dundee *G*	8/6 9/6	8/6 9/6	1 0	—	0 18 6	120,000	N Zealand	16, S. Helen's Place
Brilliant.....*G*	13/16 15/16	13/16 15/16	2 0	-/4 Nov 28,'95	2 0 0	250,000	Queensind	Charters Towers,
„ Block...*G*	1⅞ 2	1⅞ 2	1 0	-/6 Dec 16 '95	1 0 0	70,000	„	16, S. Helen's Place
„ St. Geo.*G*	1⅞ 2	1 15/16 2 1/16	10/	1/ Nov 12 '95	0 10 0	72,000	„	Charters Towers.
Brit. Brok. Hill *S*	9/16 11/16	9/16 11/16	1 0	—	1 0 0	240,000	N.S.Wales	Dashwood Ho., E.C.
„ „ *S*	—	—	8/	—	0 2 0	—	—	„
Britons United.. *G*	¾ 1	¾ 1	0	—	1 0 0	—	Coolgardie	57, Moorgate S reet.
Broad Arrow	2/3 2/9	2/3 2/9	5/	—	0 4 6	—	—	„
Broken Hill Prop.*S*	2 9/16 2 11/16	2 5/8 2¾	5/	1/- Jan 1896.	0 2 0	960,000	N. S.Wales	3, Gt. Winchester st.
Brookman Bros.	1½ 1½	1 1¼	1 0	—	0 10 0	120,000	Han. W.A.	53, Coleman Street.
Brownhill Propty.	1/16 dis 1/8 pm	1/16 dis 1/16 pm	1 0	—	0 15 0	—	Coolgardie	4, Gt. Winchester st
Caledonian .....*G*	2/6 2/6	1/6 2/6	1 0	—	—	120,000	W. Austral	Portland House.
Carrington..... *G*	2/ 3/	3/ 4/	12/6	—	0 12 6	100,007	Queensind	9, Tokenhouse Yard.
Cashman Bril.... *G*	1/16 3/16	1/16 3/16	1 0	—	1 0 0	55,128	Coolgardie	Winchester House.
Cassidy Hill .....*G*	13/16 15/16	13/16 15/16	1 0	—	1 0 0	115,000	W.Austral	4, Pinners Pl., Edin.
Central Boulder *G*	½ ¾	⅞ 1	1 0	—	1 0 0	100,000	„	20, Bucklersbury.
„ Exp. of W.A.	1 1⅛	⅞ 1⅛	1 0	—	1 0 0	122,000	„	2, Met. Exchg. Bldgs
Chaffers	4/6 5/0	3/5 4/6	4/	—	—	300,000	„	54, Old Broad-st., E.C
Charters Tow. ...*G*	/6 1/	/9 1/3	10/	—	0 9 0	200,000	Queensind	110, Cannon Street
„ Consolid....	/6 1/	/9 1/3	10/	—	0 8 6	300,000	„	110, „
Colonial Finance...	3⅛ 3⅜ pm	2 3⅛ pm	1 0	rts Oct 19 '95	0 10 0	—	W. Austral	139, „
„ Gold Fields	½ ¾ pm	⅝ ⅜ pm	1 0	—	0 12 6	—	„	„
Con. G. M. of W. A.	⅜ ½	5/16 ½	1 0	—	1 0 0	90,000	„	30, Moorgate Street.
„ Murchison ...	7/16 ½	7/16 ½	1 0	—	1 0 0	250,000	Murc., W A	Broad Street House.
Consuello ..... *G*	⅜ ⅞	par ½ pm	1 0	—	0 15 0	65,000	Cool , W A	Bishopsgate House.
Contl. & W.A. Trust	⅞ 1⅛	⅞ 1⅛	1 0	—	1 0 0	64,010	W. Austral	Broad Street House.
Coolgardie Gold ...	¾ 1	7/16 9/16	10/	1/6 Oct 16 '95	0 5 0	100,000	Cool. W.A.	Broad Street Avenue.
„ Mining *G*	1/ 2/	1/ 2/	2/	—	0 1 0	40,000	Coolgardie	Winchester House.
„ Mint & I. Kg.	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	150,000	„	30, S. Swithin's in.
Craven' Cal. ... *G*	1/0 2/	2/ 3/	6/	-/3 June 94	0 4 8	100,000	Queensind	30-1, S. Swithin's-le,
Crown Bayley's...*G*	1/16 1/8 pm	1/16 1/8 pm	1 0	—	0 10 0	80,000	Coolgardie	Bishopsgate Ho. E.C
„ United..	5/16 7/16 pm	5/16 7/16 pm	1 0	—	1 0 0	75,000	„	110, Cannon-st., E.C.
Cumbrind (New)*G*	/6 1/	/6 1/	1 0	2/6 Dec, '87	0 19 0	184,290	Queensind	Bloomfield House E C
Day Dawn B.&W.*G*	9/ 9/6	9⅜ 9/9	1 0	-/6 Nov. 14 '95	1 0 0	498,400	„	16, S, Helen's Place
„ P. C. *G*	3/ 2/6	3/ 3/6	1 0	-/6 Apr, '92	1 0 0	490,000	„	Winchester Ho..E C
Eaglehawk.....*G*	1/6 2/6	1/6 2/6	1 0	—	0 18 0	120,000	Victoria...	30-31, S. Swithin's In
Emerald .....*G*	1/16 1/8	1/16 3/16	1 0	—	1 0 0	55,000	W.Austral	4, Fenchurch-st.
Emperor .....*G*	3/8 5/8	3/8 3/8	1 0	—	1 0 0	65,000	Murc., W A	Finsbury House, EC
Empress Coolge. *G*	⅛ ⅜	¾ 1	1 0	—	0 10 0	90,000	Coolgardie	2, Tokenhouse bldgs
Explorers Synd. ...	5/8 7/8 pm	5/8 7/8 pm	1 0	—	0 5 0	9,000	W.Austral	Copthall House
Fingall h'fs. Extd	1/2 ¾	1/2 ¾	1 0	—	1 0 0	150,000	„	20, Gt. Winchester st
Florence .....*G*	1⅜ 1¾	1¾ 2	1 0	—	1 0 0	80,000	„	18, St. Swithin's In
Gem of Cue	3/6 4/6	3/6 4/6	5/	—	0 5 0	45,000	Murc. W A	8, Drapers Gardens
Gibraltar Cons.....	5/8 7/8	5/8 7/8	1 0	—	1 0 0	200,000	N S W ales	6, Queen-street-place
Gladiator ..... *G*	⅜ 1	⅜ 1	1 0	—	1 0 0	—	W. Aus ral	42, Threadneedle st
Glenrock ..... *G*	1/9 2/3	1/9 2/3	1 0	—	0 8 0	225,000	N. Zealand	3-5, Queen-st. E.C.
Golconda ..... *G*	1/16 3/16	3/16 5/16	1 0	—	1 0 0	68,088	Murchison	Winchester House
Golden Cement *G*	1 5/16 1 7/16	1 1/16 1 2/16	1 0	—	0 10 0	—	W.Austral	79, Queen Street, E.C.
„ Crown....*G*	1¾ 1⅞	1 13/16 1 15/16	1 0	—	1 0 0	160,800	W. Austral	54, Old Broad Street.
„ Gate.....*G*	1/6 1/6	1/6 1/6	10/	—	0 10 0	160,000	Queensind	9, Tokenhouse Yard
„ Horse Shoe...	⅝ ⅞	¾ 1	1 0	—	1 0 0	—	W. Austra:	13, Helen's Place
„ Link .....*G*	¾ ⅞	⅞ ⅞	1 0	5/- Oct 30 '95	1 0 0	90,000	„	Dashwood House
„ Plum.....*G*	1	¾ 1	1 0	—	1 0 0	120,000	„	4, Bishopsgate Street
Gold Estates.....	1⅞ 2⅛	2 2¼	1 0	3/ Sep 12 '95	0 10 0	60,000	„	42, Gresham House.
Great Boulder ...*G*	4¾ 5	5 5¾xd	1 0	2/- Dec 16 '95	1 0 0	240,000	Yilgarn ...	3, Gracechurch st,
„ „ Junction	1 15/16 1 9/16	1 15/16 1 9/16	—	—	—	—	—	„
„ „ M'n R'fs	1⅞ 1	1 15/16 1 11/16,	10/

REPORTS FROM THE MINES.

We find it necessary to announce that, owing to the vast numbers of mines, reports, and items of mining intelligence which reach us invariably very late—up to, and frequently after the time of going to press—it is impossible to guarantee the insertion of all of them in the issue in which, in ordinary course they should appear. We always endeavour, however, to make this important feature as complete as possible, and if the secretaries of mining companies, mining captains, and others would kindly make an effort to let their reports, etc., reach us early on Fridays, when it is not possible to let us have them earlier in the week, their doing so would go far to ensure their insertion, and to promote the completeness of our Mining Intelligence.

BRITISH MINES.

CARN BREA.—Carn Brea, R.S.O., December 20: Highburrow east. Harvey's engine shaft is sunk 11 fathoms below the 334 fathom level; the ground in the shaft is granite, strongly mixed with branches of quartz dipping south, and presenting more favourable indications as we proceed in depth. We hope that what we now have may develop into the lode even before the lift is down, which we purpose sinking to at least from 15 to 20 fathoms below the 334. The 334 fathom level is driven west of crosscut south of Harvey's shaft 62 fathoms. The lode in the end is large, strong, and promising, and should as we near the junction of both parts of the lode (about 20 fathoms in advance) develop into a productive one. We have driven the 334 end east through the crosscourse and cut the part of the lode we are driving on in the 322 fathom level. The lode is very regular, notwithstanding its being so near the crosscourse, and underlying south about 2½ or 3 feet in a fathom with granite to the north, which we consider a favourable indication. We are now rising in the back of this level in the crosscourse for ventilation, which is much needed, rise up 7 fathoms. The 322 end is driven east of crosscourse 14 fathoms. Lode worth £10 per fathom. Lode in 310 end east of crosscourse worth £10 per fathom. Last week we communicated the 298 end west of rise east of crosscourse with the stope below the 286 fathom level; this has ventilated our workings east of the crosscourse at the 310 fathom level.—Highburrow west. The lode in the 310 fathom level driving west of crosscut south of shaft is very large and strong looking, and worth £8 per fathom.—Old sump. The lode in the 256 end driving east of crosscut on Druid north lode is worth £8 per fathom. Our water has very much increased in this level of late, and must be coming from the old workings on this lode east and west of new shaft. The driving of this end during the past month has been interfered with, owing to our making some necessary repairs to the pitwork in old sump shaft; consequestly we have recently put a boring machine in the 244 end which is about 20 fathoms in advance of the 256 end, and about 13 fathoms west of man engine crosscourse, which, when reached, will, we hope, freely drain the workings in the old mine, and greatly improve our position.—Druid south lode. Trestrail's shaft is sunk 7 fathoms below the 145 fathom level. The lode is large and kindly, worth £9 per fathom. When we have sunk to the 155 fathom level we shall at once drive east and west, and lay open stoping ground, and so increase our output from this part of the mine. The winze sinking below the 145 fathom level east of shaft is down 6 fathoms. Lode producing low quality work for tin.—(Signed) W. T. White, John Daddow, Wm. Thomas, John Penhall.

DEVON GREAT CONSOLS.—William Clemo, December 26 Wheal Anna Maria engine shaft. The stope in the bottom o the 124 fathom level east is turning out well, and is worth 12 tons of good quality mundic per fathom. The stope in the back of the 110 fathom level east will yield 6 tons of copper ore and 4 tons mundic per fathom.—Field shaft, south lode. The lode in the stope in the bottom of the 130 fathom level west is a good lode, yielding 4 tons of copper ore and 10 tons mundic per fathom.—Wheal Josiah, field shaft. The stope in the back of the 130 fathom level east on the south lode is worth 6 tons mundic ore per fathom.—Richard's shaft. The stope in the bottom of the 115 fathom level east is also worth 6 tons mundic per fathom.—Hitchin's shaft. The stope in the bottom of the 115 fathom level east will produce 8 tons of mundic ore per fathom.—Agnes' shaft. The stope in the bottom of the 103 fathom level west is producing 5 tons mundic per fathom.—Wheal Emma, Thomas shaft. The stope in the back of the 130 fathom level east is producing 7 tons mundic ore per fathom. The stope in the bottom of the 100 fathom level east will yield 9 tons of mundic ore per fathom, and 1 ton of copper ore. In the stope No. 2 in the bottom of the 100 fathom level east there is a productive lode, yielding 10 tons of mundic and 2 tons copper ore per fathom. The stope in the back of the 100 fathom level east is worth 7 tons mundic and 1 ton of copper ores per fathom.—Incline shaft. The stope in the back of the 162 fathom level east is producing 3 tons mundic and 2 tons copper ores per fathom. The stope in the back of the 137 fathom level east is worth 4 tons mundic per fathom. The stope in the back of the 112 fathom level west is producing 3 tons mundic and 1 ton copper ores per fathom. The stope in the bottom of the 120 fathom level west is worth 4 tons mundic ore per fathom.—New shaft, new south lode. The stope in the bottom of the 130 fathom level east is producing 5 tons mundic and 1 ton copper ores per fathom. The stope in the back of the 130 fathom level east will produce 5 tons mundic and 2 tons copper ore per fathom.—Watso engine shaft. In the 172 fathom level east the lode is 4 feet wide, producing a little copper and mundic ores. In the 148 fathom level east the lode is 2½ feet wide, composed principally of capel. The stope in back of the 172 fathom level east will produce 4 tons copper and mundic ores per fathom. The stope No. 2 in back of 172 east will yield 5 tons copper ores and mundic per fathom. Stope in back of the 160 west is yielding 6 tons copper and mundic ores per fathom. Stope in bottom of 136 east will yield 4 tons copper and mundic ores per fathom. The winter up to the present date has proved remarkably favourable, and we have been enabled to carry on our operations underground and at surface without any important let or hindrance.

COLONIAL, INDIAN, AND FOREIGN MINES.

BAYLEY'S REWARD CLAIM.—Mining report, dated Coolgardie, November 4:—Sylvester shaft. During the week have made all arrangements for sinking the main shaft, which was resumed about the middle of the week. Since that time it has been sunk a further depth of 3 feet, total now being 393 feet from brace. The full number of men will now be kept employed in order to get it down as rapidly as possible.—South drive. From the end of the south drive at the 380 feet level have started a crosscut east to ascertain if by any chance the main lode might be in that direction, possibly what we have been driving on may only be a false wall and crosscuts at each side from this point will prove if such is the case or not.—North drive. The men employed in the north drive have been engaged breaking stone for a trial crushing. 31 tons of this has been crushed separate, yielding 8 ounces of gold, or about 5 dwts. per ton, which is far too low a grade under present conditions.—380 feet level. Have resumed work in the south drive at the 380 feet level, breaking a trial crushing from the reef at this point to ascertain its value. I anticipate crushing about 20 tons separate, this will give us the value of the stone of each level.—100 feet level. In the south stope there is no change to report. The lode continues the same size about 2 feet, the general average apparently of low grade; but we are always in hopes of striking runs of better grade stone similar to the patches we obtained above. North stope. The stone at the north stope at the same level has now been all taken out, consequently the men are all taken from this portion of the mine.—Begelhole shaft. Stoping and filling up the ground has been continued. The quartz raised shows no particular change, nothing of any consequence having been seen during the week.—Everard shaft. South drive at the 100 feet level is at present 4 feet from shaft, men being engaged a portion of the time repairing whips and other work.—Air shaft. Stope from the air shaft still yielding slightly better stone than the average, but the stopes from this level will shortly be completed, the stone being almost all taken out from Everard to the air shaft, and from the 60 feet level to the surface.—Machinery. The oil engine is still working very well indeed, but the stone we are crushing is of a dirty nature, making the water very thick, which causes frequent stoppages to enable it to clear.—Gold dispatched. To-day there has been dispatched per escort 197 ounces of gold, as advised by telegram of this date.—(Signed) W. H. Matthews.

BAYLEY'S REWARD CLAIM.—Mining report, dated Coolgardie, November 4: Main shaft. In consequence of the winding-engine boiler requiring repairs, little or no work has been done in the 170 feet level, but to all appearance will be resumed again this week. 120 feet level. North drive has been extended 8 feet, total now being 103 feet from shaft. Lode has again made 2 feet wide of a favourable character stone, but no gold being seen at present. —Stopes. Stopes in the back of the 120 range from 1 to 4 feet wide, exposing a little fine gold, but apparently not so good as formerly, but may improve at any moment, being of a patchy nature. 90 feet level. In consequence of having to suspend work at the bottom level a crosscut was started west from the north drive at the 90 feet level 126 feet north of the shaft, at the point or slightly beyond where the lode disappeared. This has been driven 11 feet through country rock, with no change at present.—Machinery. During the week the boiler to the winding engine has, so far as we can do it here, been repaired, but I am very doubtful as to its standing any length of time. This has considerably delayed the crushing in consequence of not being able to haul water to keep the battery supplied. Crushing has again been resumed on our own quartz alone, as at present there is no public crushing available.—(Signed) W. H. Matthews. P.S.—There has been dispatched per escor 54 ounces 10 dwts. of gold to-day, as advised by wire.

BREMNAES GOLD.—The directors have received the following report from the mine, dated Haugesund, December 21, Risvig Mine. In the rise in back of 500 north the lode has a width of 3 feet, with about 15 inches quartz, same carries a little galena and iron pyrites. These same remarks apply to corresponding winze sinking from 400 level. We hope to make connection here during coming month, when a large section of ground will be open for stoping. The quartz in 300 end has much improved in appearance, and has increased in width to nearly 2 feet. The quartz is of the dark striped character, carrying copper pyrites and a little galena—a very promising lode. The stope working above the 300 north shows quartz over 4 feet wide. A run of quartz on footwall about 10 inches wide contains a quantity of mineral, and should prove good mill stuff. Good progress is being made with drivage of 200 south just now, the lode is pinched, but from surface showing should take up the usual width of about 3 feet within the next 20 feet. There is no alteration to call attention to in the 80 north.—Gapleskog mine. The four men driving level north from bottom of shaft are making good progress. The lode is over 4 feet in width, with quartz varying from 10 inches to nearly 2 feet. The whole of the lode quartz is highly mineralised, and several stones showing gold have been broken from this working. Stopes working in back and bottom of No. 1 north level are producing good mill quartz carrying galena and showing gold.—Flandenaes Mine. The lode in the cutting holds a width of 3 feet, and is well mineralised. Several samples taken have panned gold. We are pushing tram line erection with all possible speed, and as soon as same is completed, shall transport the quartz from this section to mill without delay.

ALAMILLOS.—Mine report, dated December 18: In the 40 fathoms level, driving east of Santa Agueda shaft, the lode is well defined, valued at 2 tons per fathom. The driving of the 70 fathoms crosscut, north of San Felipe's shaft, is being continued, and good progress is being made. The lode in the 85 west of Taylor's engine shaft is producing stones of lead ore. In the 160 west of the same shaft the lode continues unproductive. A good improvement has taken place in the 100 east of Judd's engine shaft, and the lode is now estimated at 3 tons per fathom. Sans winze, sinking below the 60, has reached the 70 fathom level, and will be communicated by driving east from the crosscut.

BROWNHILL EXTENDED. — Progress report for fortnight ending November 15. A new main shaft, 10 feet by 3 feet 6 inches in the clear, has been started near the north boundary, which I calculate to strike the lode 175 feet from surface, but the water level should be met with at about 145 feet from surface. The shaft is a vertical one, having three compartments, two winding, and the third for a ladder road has been sunk to a depth of 15 feet, 12 feet of which have been timbered from surface. Have collared up 10 feet, total 25 feet from brace. A windlass has also been made and erected. Resumed sinking, the last two feet came on to some ironstone veins underlying west, tried several prospects which showed no gold. Intend trying everything we pass through. All work in future will be confined to the sinking of this shaft.—Smith shop. A smith shop, 15 feet by 9 feet has been finished.—Store room. This has also been finished.—General remarks. Am confident of getting the Brownhill lode in the above shaft.—W. W. Johns, manager.

FORTUNA. — Mine report, dated December 18: Canada Incosa Mine. In the 110 fathom level, driving west of St. Pedro's shaft, the lode continues regular and compact, and is valued at ½ ton per fathom.—Los Salidos Mine. The lode in the 212 east of Taylor's engine shaft still produces good stones of ore, but not sufficient to value. In the 200 east of the same shaft the lode is unproductive. The lode continues regular in the 92 west of Palgrave's shaft, but is rather small. No change of importance has taken place in the stopes since that reported. Surface works are kept on very regularly, and the machinery is in good working order. Estimated raisings for December, 225 tons. The tributers' returns amounted in the past month to 55 tons.

IMPERIAL WESTERN AUSTRALIAN CORPORATION.—Advices from Perth, under date November 20, state that Mr. A. F. Calvert has paid a deposit on the purchase of the Osborne Hotel, on behalf of the Imperial Western Australian Corporation. This splendid building is most attractively situated on the cliffs just over Claremont, a picturesque suburb of Perth. The grounds of the hotel extend down to the shore, and are provided with a substantial pier, which juts into Freshwater Bay on the Swan river. The place is therefore likely to become a popular tourist resort, especially as the hotel is only about a mile distant from the Cottesloe railway station. The pier will be one of the places of call for the passenger traffic of the recently-established Western Australian Steam Packet and Transport Corporation, by whom the Osborne will doubtless be eventually acquired. In connection with this enterprise there is also a waterworks, which supplies the whole of Claremont with fresh water. The price paid for the entire concern is said to be £20,000.

LINARES. — Mine report, dated December 18: — Poso Ancho Mine, Warne's crosscut. In the 200 fathom level driving east the lode is small and poor. The lode in the 200 west is much larger than it was, and is letting out water freely. In the 178 west the lode continues large and produces good stones of ore, and is estimated at 1 ton per fathom.—Peill's engine shaft. In the 200 west the lode is regular, and has a kindly appearance. In the 155 east the lode also looks promising, and is valued at ½ ton per fathom.—Los Quienientos Mine, Taylor's engine shaft. The lode in the 185 east is a little larger than it was, but does not contain sufficient ore to value. In the 165 east the lode is regular and well formed, but contains only spots of ore. The lode in the 150 east is large and strong, yielding good stones of ore, and is valued at ½ ton per fathom. The men are still sinking Taylor's engine shaft below the 185 fathom level, and are getting on well. Alfonso's winze sinking below the 130. The lode is wide and open and is fairly productive, being valued at 1 ton per fathom.

MOUNT MAGNET.—The following weekly report has been received from Captain Richard Piper, the general manager, dated November 16: Two men are employed in main shaft stoping out reef preparatory to timbering for permanent pump and winding compartments. The lode varies from 18 inches to 2½ feet in width and some excellent stone is being obtained, some of which I posted for the office per parcel post. No. 1 shaft has been sunk a depth of 40 feet, formation about 2½ feet thick, yielding 19 inches of quartz carrying good gold. South shaft on 19 acre lease now down 30 feet, lode formation 3½ feet wide, producing 18 inches of stone, which prospects fairly well. North shaft on same reef is 20 feet deep, yielding 2 feet of quartz payable for milling. During the fortnight a stable has been erected of brush, and I have had 1000 sun dried bricks for building store and office, which I purpose commencing to build next week.—(Signed) Richard Piper.

BALAGHAT MYSORE. — Thomas Richards, December 11: Report for the fortnight ending December 7. Ogle's shaft. The 270 feet level south has been driven 20 feet, total distance 278 feet from the crosscut. The lode (quartz) is 7 inches wide, assaying a trace of gold.—Cyanide works.—Good progress is being made in the erection of these works.

MYSORE REEFS (Kangundy).—Fortnightly report of Captain M. Scantlebury, mine agent, dated December 11: Underlie shaft. This shaft has been sunk 6 feet 3 inches, now 44 feet 9 inches below the 425 feet level. The lode is 4 feet wide, 2 feet of which is solid quartz, worth by panning 8 dwts. of gold to the ton. 425 feet level north has been advanced 11 feet, now 95 feet 6 inches from shaft. The lode is 2 feet wide, composed of quartz, schist, and a little pyrites, worth by assay 6 dwts. 12 grains of gold to the ton. 425 feet level south has been extended 13 feet, now 75 feet 6 inches from shaft. The lode is 1 foot 6 inches wide, composed of quartz, schist, and a little arsenical pyrites, worth by assay 3 dwts. 6 grains of gold to the ton.—Stope in back of 425 feet level north. The quartz is 1 foot 6 inches wide, and worth 8 dwts. of gold to the ton. Stope in bottom of 325 feet level north of winze. The quartz is 10 inches wide, and worth 1 ounce 15 dwts. of gold to the ton.—Stope south of winze. The quartz is 15 inches wide, and worth 15 dwts. of gold to the ton. —Stope in back of 325 feet level. The quartz is 2 feet wide, assaying 6½ dwts. of gold to the ton. Vertical shaft has been sunk 3 feet, now 286 feet 6 inches from surface.—Stope in back of 260 feet level. The quartz is 1 foot 6 inches wide, assaying 6 dwts. of gold to the ton.—Stope in bottom of 260 feet level. The quartz is 2 feet wide, assaying 8 dwts. of gold to the ton.—New north shaft has been sunk 5 feet, now 74 feet 6 inches from surface.—Health. The health of the camp is fairly satisfactory.

NUNDYDROOG.—Thomas Richards. Report for the fortnight ending December 7: Taylor's shaft. The 1240 feet level south has been driven 12 feet 9 inches, total distance 145 feet 6 inches. The lode assays a trace of gold. The 1240 north crosscut east has been extended 16 feet 6 inches. No further portion of the lode having yet been met with. In the stope in the back of the 1000 north the lode 2 feet wide, assays 3 dwts. 18 grains of gold per ton. The 920 south rise has been put up 17 feet, total height 32 feet. Lode 1 foot wide, assays 8 dwts. 18 grains. The 920 north has been driven 15 feet, total distance 280 feet. Lode consisting of stringers of quartz assays 2 dwts. 12 grains. In two stopes in the back of the 840 north the lode averages 2 feet 9 inches in width, and 14 dwts. 9 grains in assay value. In two stopes between the 600 and 520 levels north the lode averages 2 feet 6 inches in width, and 7 dwts. 12 grains in assay value. The lode in the stope in the back of the 520 north is 2 feet wide, and assays 6 dwts. 6 grains, and in the stope in the back of the 230 south it is 1 foot 6 inches wide, assaying 10 dwts. Main shaft has been sunk 8 feet, total depth 64 feet 6 inches below the 1080 feet level. Lode of no assay value. The 1080 north crosscut west has been extended 5 feet 6 inches, total distance 18 feet 6 inches, but no further portion of the lode has been met with in this direction. Crosscut suspended. The 1080 north crosscut east has been advanced 9 feet 6 inches, total distance 22 feet 6 inches. The lode which had been cut into 2 feet at the date of the last report proved fully 5 feet wide, of solid quartz at this point. It has since been opened upon northwards 11 feet 6 inches, making a total distance of about 280 feet north from the shaft, and in the present end of the drivage the lode is 6 feet wide, of an assay value of 2 ounces 13 dwts. 18 grains. Another crosscut has been driven east at this level, the 1080 north, about 40 feet south from the former one, nearer the crosscourse. This has been extended 22 feet east, where the part of the lode intersected is 3 feet wide, assaying 2 dwts. 12 grains, and the drivage has now been turned northward on the course of the lode. The 1000 north has been driven 13 feet 3 inches, total distance 305 feet 3 inches. Lode of no assay value. In the stope in the back of the 1000 south the lode, 7 feet wide, assays 15 dwts. In two stopes above and below the 920 south the lode averages 4 feet 3 inches in width, and 16 dwts. 21 grains in assay value, and in the stope in the back of the 920 north it is 4 feet wide, of an assay value of 2 ounces 5 dwts. In the stope in the back of the 840 south the lode is 4 feet wide, and assays 6 dwts. 6 grains. The 680 north has been driven 20 feet 6 inches, total distance 492 feet. The lode is 8 inches wide, assays a trace of gold. The 520 north has been driven 26 feet 6 inches, total distance 206 feet, 3 inches. Lode of no assay value. The 370 north has been driven 15 feet 6 inches, total distance 95 feet 6 inches. Lode 2 feet wide is of no assay value.—Kennedy's shaft. The 700 feet level crosscut west has been extended 14 feet 6 inches, total distance 41 feet 6 inches. Ground very hard and progress slow. The 600 south has been driven 14 feet 6 inches, total distance 260 feet. The lode is 3 feet 6 inches wide, and assays 3 ounces 12 dwts. 12 grains. The 600 south rise has been put up 18 feet 9 inches, total height 59 feet 6 inches. Lode 2 feet wide, assays 3 dwts. 3 grains. The 600 north has been driven 16 feet, total distance 295 feet. Lode 6 inches wide assays 12 dwts. 12 grains. In the stope in the back of the 520 north the lode is 5 feet wide and assays 7 dwts. 12 grains. The 440 south has been driven 15 feet 6 inches, total distance 1199 feet. The lode consists of stringers of quartz of no assay value. In the stope in the back of this level the lode 4 feet wide assays 2 ounces 12 dwts. 12 grains. The 440 south crosscut west has been extended 12 feet, total distance 44 feet. No change. The 370 south has been driven 13 feet, total distance 950 feet. This drivage has been suspended and a rise commenced in the back of the level at 545 feet from the shaft. In this rise, which has been put up 12 feet, the lode is 2 feet wide, of an assay value of 2 ounces 15 dwts.—In the 370 north crosscut west a drivage has been commenced on a branch of quartz met with at 410 feet. This has been opened upon southward 11 feet 6 inches, and the lode 1 foot wide, assays a trace of gold. In the stope in the back of the 370 north the lode 2 feet wide assays 3 ounces 8 dwts. 18 grains. The 300 south crosscut west (from the end of the drivage south) has been put out 16 feet. Stringers of quartz carrying a trace of gold have been met with. The 300 south rise has been put up 16 feet. The lode, 9 inches wide, assays 10 dwts. In the stope in the back of this level the lode, 2 feet wide, assays 1 ounce 5 dwts. A crosscut east is being driven from the top of the 300 north rise, with the object of reaching the footwall part of the lode. This crosscut has been driven 19 feet in lode matter throughout, the last part of which assays 3 dwts. 18 grains for a width of 2 feet. The 230 south has been driven 13 feet, total distance 184 feet 6 inches. The lode 1 foot 6 inches wide assays 2 ounces 12 dwts. 12 grains. In the stope in the back of the 230 north the lode, 5 feet wide, assays 7 dwts. 12 grains. The 160 south has been extended 1 foot 6 inches, total distance 426 feet 6 inches, the part of the lode followed proving of no value; a crosscut is being driven west to ascertain whether any part of the lode exists in that direction. This crosscut has been advanced 3 feet without any further portion of the lode having been met with. In the stope in the bottom of the 160 north the lode 3 feet 6 inches wide, assays 1 ounce 6 dwts. 6 grains. The 160 north rise has been put up 16 feet 6 inches, total height 45 feet. The lode is 3 feet wide, assaying 3 dwts. 18 grains. North shaft has been sunk 5 feet below the 600 feet level, and the lode assays a trace of gold.—Old mill samples. Pulp 1 ounce 2 dwts. 12 grains; tailings 3 dwts. 3 grains.—New mill samples. Pulp 1 ounce 7 dwts. 12 grains; tailings 4 dwts.

— Messrs. Davis and Soper notify that a dividend of 5 per cent. has been declared by the JOHANNESBURG ESTATE COMPANY upon the register of January 7, 1896. The books will be closed from the 8th to the 16th January inclusive.

AUSTRALASIAN MINING COMPANY.—Fortnightly report of Mr. John James, manager, dated November 7: During the past fortnight Bishop and party have sunk the shaft a further depth of 25 feet, total 556 feet, and timbered 18 feet, total timbered 535 feet. The sinking is through hard green boulder conglomerate; the contractor has 11 men sinking; the water keeps about the same.

BAYLEY'S NO. 2 SOUTH.—The following fortnightly report, dated November 19, has been received from the mine manager (Mr. W. M. Vivian):—I beg to report that for the past fortnight at No. 2 shaft the level has been driven a further distance of 11 feet 6 inches, making a total distance of 97 feet 6 inches from the crosscut. The reef continues to improve in width, and is now about 2 feet wide. Value 2 to 2½ ounces of gold per ton. At No. 1 shaft 9 feet has been sunk, making a total depth of 62 feet. The reef has now an average width of 3 feet 6 inches, and the value about 1 ounce of gold per ton. At No. 5 shaft 13 feet has been sunk, making the total depth 121 feet.

BONNIE DUNDEE.—Mine manager's report for fortnight ending November 2:—Underlie shaft on Victory Reef. Have sunk 8 feet, total depth below No. 1 level 115 feet. We have a leader dipping north of east, and a splendid footwall. Shall commence No. 2 level next week. 1 level north extended 8 feet, but owing to bend have driven at least 15 feet. Have raised some good stone from this point. The stopes have yielded a fair amount of crushing stuff, the reef averaging a foot in thickness for 150 feet. The winze has been sunk 12 feet.—1 level south. The stopes have yielded some good ore, a portion of which is looking very well. The winze has been sunk 20 feet, making a total of 52 feet. Have taken a reef down the whole depth; it is 8 inches deep at present. Both skip roads are now at work, the rails are laid to the bottom of the shaft.

BRILLIANT BLOCK.—Mine manager's report for fortnight ending October 30: Underlie shaft. Have resumed the sinking. The water chamber under No. 8 level plat is now 40 feet long, 7 feet high, and fully 9 feet wide. No. 8 level east extended 20 feet, total length 64 feet. Reef in face a few inches thick of poor quality. Stope over reef is 2 feet wide, 10 dwts. No. 7 level east extended 14 feet on hanging-wall, total 105 feet. Reef in face 1 foot, 16 dwts. There are seven stopes in work, in six of which the reef is from 1 to 6 feet, of 10 to 20 dwts. stone, and in the seventh 11 to 13 feet, of 10 to 17 dwts. No. 6 level west extended 24 feet, total length 372 feet. Reef in face 3 feet, 10 dwts. Reef in stopes 18 inches to 3 feet, of 10 to 15 dwts. stone.—No. 6 level east. Reef in stopes 2 to 4 feet, of 15 to 25 dwts. stone.—No. 4 level west. No. 3 winze sunk 17 feet, total depth 37 feet. Reef in bottom 1 foot, 10 dwts. In the stopes the reef is 2 feet 6 inches, of 10 to 17 dwts.—No. 4 level east. Stoping on flat reef, which varies from 6 inches to 2 feet, of 15 to 20 dwts. stone.—New mill. Pushing on main building and the hoppers; Wheeler pans in course of erection.

CENTRAL BUFFELSDOORN.—The following information has been received at the London office, dated Johannesburg, December 2: Negotiations have been completed for the acquirement by this company of 159 claims on the farms Eleazor and Reitfontein, adjoining this company's property, from the United Buffelsdoorn Mines (Limited) for the consideration of 50,000 fully paid up shares of £1 each in this company, which were provided by the increase of this company's capital from £200,000 to £250,000.

COROMANDEL.—Superintendent's report for fortnight ending November 30: Prospect shaft. The shaft has been sunk since last report 7 feet 6 inches, making its total depth 515 feet 6 inches.—500 feet level south. The crosscut east has been advanced a further 18 feet, total 282 feet. There is no change to report, and the ground is extremely hard for driving.—200 feet level north. The winze has been sunk by hand 6 feet, total 24 feet. Lode in bottom 4 feet wide, averaging 6 dwts. of gold per ton.—East shaft, 500 feet level north. The winze in bottom of this level has been sunk 15 feet 6 inches, total 92 feet. Lode 2 feet wide, assaying 7 dwts. 12 grains of gold per ton.—320 feet level north. The cross-cut east has been driven a further 12 feet and suspended. Drivage north has been resumed on the branches previously intersected in the crosscut. The end is now 8 feet from crosscut, and the lode is 1 foot 6 inches wide of mixed character, assaying ½ an ounce of gold per ton.—200 feet level north. The crosscut east has been driven 23 feet, total 51 feet, and having discovered nothing of value, drivage has been resumed on the lode previously carried in the main drive.—100 feet level. A crosscut is being driven at this level with the object of intersecting the lode seen in the levels below. Progress for the fortnight by hand labour, 8 feet 6 inches, total length 18 feet 6 inches.

CHAMPION REEF.—Fortnightly report of Captain James Rowe superintendent, dated December 4: Dalyell's shaft. This has been stripped down 24 feet 6 inches, total depth 807 feet 6 inches.—Garland's shaft. This has been sunk 5 feet 3 inches, total depth 975 feet 6 inches. Lode 2 feet wide, assaying 2 ounces 14 dwts. of gold per ton. The 940 feet level north has been driven 35 feet, total length 248 feet 6 inches. Lode 3 feet wide, assaying 2 ounces 9 dwts. of gold per ton. No. 1 rise above level risen 26 feet 9 inches, total height 74 feet 3 inches. Lode 2 feet 9 inches wide, assaying 1 ounce 12 dwts. 16 grains of gold per ton. The 940 south driven 26 feet 9 inches, total length 191 feet 3 inches. Lode 1½ foot wide, assaying 2 ounces 22 grains of gold per ton. No. 1 rise above level risen 13 feet 9 inches, total height 30 feet 3 inches. Lode 1½ foot wide, assaying 1 ounce 3 dwts. 6 grains of gold per ton. The 840 feet level north driven 28 feet 9 inches, total length 673 feet 6 inches. Lode 2 feet 3 inches wide, assaying 12 dwts. 18 grains of gold per ton. No. 4 rise above level risen 15 feet 6 inches, total height 81 feet. Lode 1 foot 6 inches wide, assaying 1 ounce 3 dwts. 16 grains of gold per ton. The 740 feet level north driven 32 feet 6 inches, total length 875 feet. Lode 5½ feet wide, assaying 1 ounce 9 dwts. 20 grains of gold per ton. No. 6 rise in back of level risen 17 feet 9 inches, total height 26 feet 3 inches. Lode 5 feet wide, assaying 1 ounce 16 grains of gold per ton. The 630 feet level north driven 33 feet 6 inches, total length 1025 feet 9 inches. Lode 4½ feet wide, assaying 1 ounce 15 dwts. 15 grains of gold per ton. No. 8 rise above level risen 16 feet, total height 49 feet 9 inches. Lode 4 feet wide, assaying 1 ounce 8 dwts. of gold per ton. No. 7 rise risen 3 feet, total height 68 feet. This is communicated with 530 feet level north.—Ribblesdale's shaft. This has been sunk 1 foot, total depth 669 feet 3 inches. Lode 9 inches wide, assaying 1 ounce 18 dwts. 22 grains of gold per ton. The sinking has been retarded on account of our having to put in heavy timber in the shaft. The 640 feet level north driven 20 feet, total length 236 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 15 dwts. 20 grains of gold per ton. The 640 feet level south of crosscut east of level south of shaft on east part of lode has been driven 18 feet, total length 44 feet. Lode 1 foot 6 inches wide, assaying 1 ounce 2 dwts. 14 grains of gold per ton. No. 1 new rise on back of level 20 feet south of crosscut to communicate with incline winze below 540 south risen 12 feet. Lode 1 foot wide, assaying 1 ounce 3 dwts. 12 grains of gold per ton. The 540 feet level south has been driven 27 feet 6 inches, total length 504 feet 9 inches. Lode 3½ feet wide, assaying 16 dwts. 10 grains of gold per ton. No. 3 new rise in back of level (120 feet south of No. 2) risen 20 feet. Lode 3½ feet wide, assaying 1 ounce 12 dwts. 4 grains of gold per ton.—Carmichael's shaft. The 540 feet level north of east crosscut on east part of lode has been driven 21 feet, total length 247 feet. Lode 4½ feet wide, assaying 1 ounce 13 grains of gold per ton. No. 3 rise above level risen 14 feet 9 inches, total height 21 feet 3 inches. Lode 8½ feet wide-assaying 1 ounce 20 grains of gold per ton. No. 2 rise risen 9 feet 6 inches, total height 68 feet 6 inches. Lode 6 inches wide, assaying 16 dwts. 16 grains of gold per ton. The 440 feet level north of crosscut east of 440 north of shaft, on east part of lode has been driven 15 feet 9 inches, total length 19 feet 9 inches. Lode 6 inches wide, assaying 1 ounce 18 dwts. 6 grains of gold per ton.—Rowe's shaft. This has been sunk 9 feet 9 inches, total depth below 515 feet level 70 feet 9 inches. Lode 2 feet wide, assaying 1 ounce 9 dwts. 14 grains of gold per ton. Winze below 515 north sunk 8 feet 9 inches, total depth 39 feet 9 inches. Lode 2½ feet wide, assaying 1 ounce 2 dwts. 2 grains of gold per ton. The 515 feet level south of shaft driven 20 feet 3 inches, total length 46 feet 3 inches. This end is in the east and west dyke.—Stopes. Dalyell's shaft. Stope above 520 south of 530 south winze cut 9 fathoms. Lode 2½ feet wide, assaying 1 ounce 8 dwts. 4 grains of gold per ton. Stope north of winze cut 6 fathoms 1 foot. Lode 2½ feet wide, assaying 1 ounce 9 dwts. of gold per ton. Stope above 620 south of 530 north winze cut 12 fathoms. This is suspended. Stope below 440 south of north winze cut 12 fathoms 9 inches. Lode 3 feet wide, assaying 1 ounce 5 dwts. 8 grains of gold per ton. Stope below 440 north of south winze cut 6 fathoms 4 feet. Lode 2 feet wide, assaying 1 ounce 3 dwts. 14 grains of gold per ton.—Garland's shaft. Stope above 840 north of No. 2 rise cut 16 fathoms 3 feet 3 inches. No sample. This is suspended for a time. Stope north of No. 3 rise cut 4 fathoms 1 foot 3 inches. Lode 5 feet wide, assaying 1 ounce 12 dwts. 16 grains of gold per ton. Stope above 840 south of No. 2 south rise cut 8 fathoms 3 feet 3 inches. No sample. This is suspended for a time. Stope below 630 south of 740 No. 2 north rise cut 25 fathoms 3 inches. Lode 6 feet wide, assaying 1 ounce 10 dwts. of gold per ton. Stope above 630 south of No. 6 north rise cut 12 fathoms 4 feet 9 inches. Lode 3 feet wide, assaying 1 ounce 3 dwts. 12 grains of gold per ton. New stope north of rise cut 6 fathoms 2 feet 6 inches. Lode 3 feet wide, assaying 1 ounce 10 dwts. 12 grains of gold per ton. Stope above 530 north of No. 7 rise cut 9 fathoms 3 inches. Lode 5 feet wide, assaying 1 ounce 8 dwts. 20 grains of gold per ton. Stope south of rise cut 8 fathoms 3 feet 3 inches. Lode 3½ feet wide, assaying 1 ounce 6 dwts. 3 grains of gold per ton. Stope north of No. 6 rise cut 5 fathoms 2 feet 3 inches. Lode 5 feet wide, assaying 1 ounce 8 dwts. 8 grs. of gold per ton. Stope north of No. 2 rise cut 10 fathoms 2 feet 3 inches. Lode 7 feet wide, assaying 1 ounce 12 dwts. 2 grains of gold per ton. Stope south of rise cut 7 fathoms 5 feet 3 inches. Lode 2 feet wide, assaying 1 ounce 15 dwts. 17 grains of gold per ton. Stope above 530 north of rise south of west crosscut cut 7 fathoms 4 feet 6 inches. Lode 2½ feet wide, assaying 1 ounce 11 dwts. 22 grains of gold per ton. Stope below 440 north of 530 No. 8 north rise cut 8 fathoms 2 feet 3 inches. Lode 6 feet wide, assaying 1 ounce 9 dwts. 4 grains of gold per ton. Stope above 440 north of No. 6 north rise cut 8 fathoms 4 feet 3 inches. Lode 6 feet wide, assaying 1 ounce 6 dwts. 3 grains of gold per ton. Stope south of No. 4 rise cut 19 fathoms 1 foot. Lode 4 feet wide, assaying 1 ounce 1 dwt. 12 grains of gold per ton. Stope north of No. 2 rise cut 5 fathoms 3 feet 3 inches. Lode 3 feet wide, assaying 1 ounce 15 dwts. 8 grains of gold per ton. Stope south of rise cut 14 fathoms 2 feet 3 inches. Lode 7 feet wide, assaying 1 ounce 4 dwts. 8 grains of gold per ton. Stope south of No. 1 rise cut 24 fathoms 2 feet 3 inches. Lode 7 feet wide, assaying 1 ounce 12 dwts. of gold per ton. Stope below 440 south of west crosscut 12 fathoms 3 inches. Lode 2 feet wide, assaying 1 ounce 11 dwts. of gold per ton. Stope below 340 south of 440 No. 3 north rise cut 16 fathoms 5 feet 9 inches. Lode 4 feet wide, assaying 1 ounce 3 dwts. 6 grains of gold per ton. Stope north of No. 2 rise cut 4 fathoms. Lode 6 feet wide, assaying 1 ounce 15 dwts. 8 grains of gold per ton. Stope south of rise cut 7 fathoms 3 inches. Lode 6 feet wide, assaying 1 ounce 6 dwts. 3 grains of gold per ton. Stope below 340 north of north winze cut 4 fathoms 1 foot 9 inches. Lode 6 feet wide, assaying 1 ounce 5 dwts. 10 grains of gold per ton. Stope south of winze cut 5 fathoms 1 foot 9 inches. Lode 3 feet wide, assaying 1 ounce 2 dwts. 10 grains of gold per ton. Stope below 340 north of 440 rise south of west crosscut cut 4 fathoms 6 inches. Lode 2 feet wide, assaying 1 ounce 6 dwts. 12 grains of gold per ton. Stope above 240 north of No. 2 north rise cut 9 fathoms 2 feet. Lode 3 feet wide, assaying 1 ounce 15 dwts. 17 grains of gold per ton. Stope north of No. 1 rise cut 4 fathoms 1 foot. Lode 2 feet wide, assaying 1 ounce 13 dwts. 14 grains of gold per ton. Stope below 240 south of winze south of west crosscut cut 14 fathoms 5 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 2 dwts. 10 grains of gold per ton.—Ribblesdale's shaft. Stope above 540 north of No. 1 south rise cut 5 fathoms 2 feet. Lode 5 feet wide, assaying 1 ounce 20 grains of gold per ton. Stope above 440 south of No. 2 west crosscut cut 8 fathoms 1 foot 3 inches. Lode 2½ feet wide, assaying 1 ounce 13 dwts. 14 grains of gold per ton. Stope south of No. 1 west crosscut cut 8 fathoms 3 feet. Lode 4 feet wide, assaying 1 ounce 11 dwts. 11 grains of gold per ton. Stope below north level north of east crosscut at 340 south cut 15 fathoms 3 feet 3 inches. Lode 6 feet wide, assaying 18 dwts. 10 grains of gold per ton. Stope above 340 south of No. 2 south rise cut 6 fathoms 2 feet 3 inches. Lode 3 feet wide, assaying 17 dwts. 2 grains of gold per ton. Stope south of No. 1 rise cut 4 fathoms 3 feet 6 inches. Lode 4 feet wide, assaying 16 dwts. 12 grains of gold per ton. Stope above 340 north of fold cut 10 fathoms 6 inches. Lode 9 feet wide, assaying 1 ounce 14 dwts. 20 grains of gold per ton. No. 2 stope north of No. 2 rise above 240 south cut 10 fathoms 5 feet. Lode 3 feet wide, assaying 1 ounce 11 dwts. 12 grains of gold per ton. No. 2 stope south of No. 1 rise cut 11 fathoms 4 feet 6 inches. Lode 3½ feet wide, assaying 1 ounce 7 dwts. 8 grains of gold per ton. No. 3 stope south of rise cut 7 fathoms 5 feet. Lode 7 feet wide, assaying 1 ounce 12 dwts. of gold per ton. Stope north of No. 1 rise above 240 south cut 9 fathoms 5 feet 9 inches. Lode 2 feet wide, assaying 19 dwts. 14 grains of gold per ton. Stope on east part of lode at 240 south cut 7 fathoms 5 feet 3 inches. Lode 2½ feet wide, assaying 1 ounce 8 dwts. 20 grains of gold per ton.—Carmichael's shaft. Stope below 225 north of winze cut 9 fathoms 2 feet 6 inches; no sample; suspended. Stope south of winze cut 7 fathoms 2 feet 6 inches. No sample. Suspended. Stope above 540 south of No. 1 rise on fold. Lode 5 feet wide, assaying 2 ounces 2 dwts. 10 grains. of gold per ton.—Rowe's shaft. Stope above 315 north of south rise cut 9 fathoms 2 feet 6 inches. Lode 6 feet wide, assaying 1 ounce 16 dwts. 12 grains of gold per ton. Stope south of rise cut 7 fathoms 1 foot 3 inches. Lode 6 feet wide, assaying 1 ounce 6 dwts. 3 grains of gold per ton. Stope above 315 north of shaft cut 6 fathoms 4 feet 3 inches. Lode 1 foot 9 inches wide, assaying 1 ounce 15 dwts. 20 grains of gold per ton. The above stoping is for November month.—Returns. During November month 4780 tons of quartz were stamped produced 5910 ounces of gold. 1290 tons of tailings were treated, which produced 318 ounces of gold, making a total yield for the month of 6228 ounces of gold.—New mill. We have the whole of the foundation pile timbers for the 40 heads fixed, and the masons are progressing fairly well with the buildings.—Heath. The health of the employees is fairly good.

DAY DAWN BLOCK AND WYNDHAM.—Mine report for fortnight ending November 2: No. 2 underlie shaft 16 level east driven 15 feet, total 78 feet, reef 18 inches, rather broken, but worth 16 dwts. In stopes reef averages 2½ feet, 19 dwts. No reef on footwall.—15 level east. No. 3 winze 43 feet deep. Sunk partly in formation and partly in reef, leaving good mineral stone underfoot, worth 1 ounce. No. 4 winze total depth 30 feet. Whole of winze is being sunk in reef, and leaving some still underfoot, worth 18 dwts. No. 5 winze sunk 24 feet. All in stone except about 10 inches. Reef worth 1 ounce. Stopes over on Talisman reef 1 foot and on Day Dawn reef 18 inches, worth 18 dwts.—15 level west. Stopes average 3 feet, 8 dwts.—14 level west. Total length 444 feet. Reef 1 foot with fair mineral. Stopes average 2 feet, worth 12 dwts.—14 level west (intermediate). Stopes 3 feet, worth 22 dwts.—13 level west. Total 305 feet from shaft. Reef in face 20 inches, heavy mineral stone (say) 13 dwts. Stopes reef 20 inches, 12 dwts.—11 level west. No. 2 winze 106 feet. Formation 3 feet, but no reef.—No. 3 shaft (underlie). Total depth 901 feet. Cleaning up.

EJUDINA GOLD MINES.—Report on the Ejudina Gold Mines, Limited, by Bergrath Schmeisser.—Situation. The property is situated 135 miles north-east of Coolgardie and 5 miles south of Ejudina.—Extent of property. The property comprises leases Nos. 320, 321, 322, 323, 324, 325, of 24 acres each, in all 144 acres.—General description. There are eight parallel lines of reef running through the property, from south-south-east to north-north-west, covering about 7 miles. They are marked as follows (from west to east): 1 (no name), 2 A, 3 B, 4 C, 5 D, 6 E, 7 F, 8 G. The outcrop of these, which at many places reach the surface, can be traced far beyond the boundaries of the property, they dip in an easterly direction between 75°—80°, and are so thoroughly embedded in the quartz that they may be termed "Lenticular bodies of ore," similar to those in the Fingall Mine, on account of the quartz appearing in pockets. The lode in which these reefs appear consists of quartz and in some places of a thin layer of clay, which goes down to a depth of 80 to 90 feet, and this makes the ore easy to work. At a depth of 80 to 90 feet water is found, although in only small quantities.—Explanatory work. There are 13 shafts in all on the property, as well as a number of trenches. They are situated as follows:—Lease No. 324, shaft No. 1; lease No. 323, shafts No. 2, 3, 4, 5; lease No. 322, shafts No. 6, 6a, 7; lease No. 321, shaft No. 8; lease No. 320, shafts 9, 10, 11, and boundary shaft.—Their position in regard to the eight lines of reefs is as follows:—Line of reef, no name, boundary shaft; line of reef, A, shaft Nos. 4 and 11; line of reef, B, shaft No. 8; line of reef, C, shaft Nos. 1, 2, 3, and 10; line of reef, D, shaft Nos. 6a and 7; line of reef, E, shaft Nos. 5 and 6; line of reef, F, shaft No. 9; line of reef, G, shaft No. —. I have been down all the shafts, except No. 4, accompanied by my assistant, Dr. Vogelsang. The samples, which have been taken from various parts, are average samples.—Development. Shaft No. 1 has been sunk 76 feet; reef 18 inches high and 6 inches wide. Shaft No 2 has been sunk 90 feet; levels driven at 40 feet and 75 feet north and south. Shaft No. 2 has been sunk 90 feet; two levels have been driven, one south 249 feet, connected by a crosscut to shaft No. 2 at 151 feet, the other level in northerly direction has been driven 249 feet. Shaft No. 4 sunk 45 feet. I did not go down. Shaft No. 5 sunk 71 feet, reef 1 foot 6 inches thick. At 52 feet a crosscut to the north has been driven 8 feet 6 inches, reef 1 foot wide. A crosscut to the south, 33 feet long, 6 inches to 1 foot 10 inches in width. Shaft No. 6 sunk 80 feet, reef consists of two alternate lines of pockets, measuring in height 15 feet and width 2 feet 6 inches. A crosscut 10 feet long has been driven to the west. Shaft No. 6a sunk 67 feet, the lode being about 100 feet from shaft No. 6. Two alternate lines of pockets 6 feet high by 2 feet thick, decreasing in depth. Crosscuts have been driven 19 feet in the underlay; to the south 53 feet, to the north 48 feet. Shaft No. 7 sunk 70 feet, pockets from 6 inches to 12 inches in width. Shaft No. 8 sunk 80 feet, crosscuts north level 172 feet long, south 127 feet long. The boundary shaft has been sunk 90 feet on reef A. At 83 feet a crosscut north has been driven 14 feet. Shaft No. 9 sunk 22 feet and abandoned. Shaft No. 10 sunk 26 feet and abandoned. Shaft No. 11 sunk 84 feet. A crosscut to the south 140 feet long; a crosscut to the north 120 feet long. In the shaft the gold in the ore is very fine. I was informed that it was intended to sink a vertical main shaft between shafts 3 and 5 down to 200 feet, and to connect all the southern shafts and crosscuts, so as to be able to concentrate all the ore mined at one point. Perhaps a similar main shaft for the northern shafts would also be sunk.—Conclusions. The ore deposits of the Ejudina Gold Mines are like those of the Fingall Mines, nearly all through lenticular, which contain pockets of greatly varying sizes, and also some long barren stretches. Pure quartz deposits have only been found in the boundary shaft and shaft No. 5, with a regular formation from the surface downwards. But even here there is an inclination noticeable for pocket formation. Up to now it has been impossible to state by the mere appearance either at this mine or at the Great Fingall, situated a little further north, whether the various lodes which are opened up stretch over any length, because only in a few instances have the reefs of the various shafts been proved to be one and the same. The many quartz veins, although not having been proved to form direct continuation, run on the surface in the same direction for several miles, and this fact makes it probable that the lodes in the Ejudina district have a great length. From observations made in other mining districts a great length of the reefs generally indicates a widening of the reefs with greater depth. Considering however that in shafts 6A, 7, 11 and the boundary shaft the reefs are getting smaller already at a depth of not even 100 feet, there is no reason to anticipate this from the Ejudina Mine, even if one brings forward against the observations made in the aforesaid shafts, that in No. 8 an increase in the size of the pockets is visible with greater depth.—(Signed). Schmeisser, Bergrath, Coolgardie, October 21.

GOLD FIELDS OF MYSORE.—Mine report for fortnight ending December 3: South shaft. The 280 feet level north of crosscut on West Balaghat lode has been extended a further distance of 11 feet 1 inch, total 136 feet 4 inches. Lode formation is 4 feet wide, assaying 2 dwts. 7 grains of gold per ton. The south end has been driven 14 feet 9 inches, total 156 feet 9 inches from crosscut. A change has set in here, and the end now shows about 15 inches of quartz on the footwall side. The assay, however, is still very low, being 1 dwt. 3 grains of gold per ton.—Oriental lode. The 280 feet level end north has been driven 8 feet 6 inches. Total 205 feet 8 inches from shaft. Lode 3 feet wide, assaying 2 dwts. 7 grains of gold per ton. Winze in bottom of this level sunk 3 feet 10 inches. Total 8 feet 4 inches below the level. Lode 3 feet 4 inches wide, quartz assaying 4 dwts. of gold per ton. Rise stope over the level stopes, 7 fathoms. Lode 10 feet wide of mixed quartz, assaying 5 dwts. 2 grains of gold per ton. Intermediate drive over the level, driven 2 feet; total 25 feet. Lode all the width of drive (5 feet). This drive is now a sufficient length to communicate to the rise north. It has been suspended, winze in bottom of the south level sunk 4 feet 4 inches, total 7 feet 4 inches. Lode 2 feet wide, quartz assaying 7 dwts. 2 grains of gold per ton. The 380 feet level north, No. 1 rise, risen 8 feet 6 inches, total 58 feet above the level. Lode 2 feet wide, assaying 5 dwts. 16 grains of gold per ton. No. 2 rise risen 6 feet 6 inches, total 67 feet, is following up an irregular division of no value. Crosscut west from north level driven 11 feet 3 inches, total 70 feet 9 inches. A small vein of barren quartz has been raised during the past week. The forebreast is now crossing a dyke which shows vertical veins of calcareous quartz. The 380 feet level south No. 1 rise risen 9 feet, total 41 feet. Lode 3 feet wide, quartz assaying 6 dwts. 7 grains of gold per ton. The 470 feet level, raising roof of south level 26 feet 9 inches, total 56 feet 9 inches. Lode 2 feet wide, assaying 5 dwts. 2 grains of gold per ton. Cutting ground for tip-plat under the 470 feet level, this has been finished to bottom of the shaft (8 feet below the level). We shall now resume sinking of shaft carrying it a sufficient size for a shoot plat. A sample taken from the end of the shaft under the level assayed 2 ounces 1 dwt. 10 grains of gold per ton; this, I think, speaks well for deeper sinking.—Middle shaft. The 235 feet level crosscut east for depository for water driven 15 feet 5 inches and sunk 2 feet 6 inches. This work is being pushed on with all possible speed. Prospecting shaft Golconda block sunk 17 feet 6 inches, total depth 57 feet 6 inches. The nature of the rock is much as last reported, and assaying 12 grains of gold per ton.

KEMPINKOTE.—Mine report for fortnight ending December 2: Garland's shaft has been sunk 17 feet 3 inches, total depth from surface 490 feet 9 inches. The bottom of shaft is still in schist. 345 north drive has been driven 24 feet, total distance from main crosscut 188 feet. Lode in end the full size of the drive, assaying 4 dwts. 14 grains of gold per ton. 345 north drive No. 1 crosscut east has been driven 8 feet 3 inches, total distance 59 feet 3 inches. Lode in the end full width of the drive, assaying 14 grains of gold per ton. 345 south drive has been driven 21 feet, total distance from the main crosscut 258 feet. The lode in the end is 5 feet wide, assaying 1 dwt. of gold per ton.—245 north drive. No. 2 winze. 50 feet west of crosscut has been sunk 6 feet 6 inches, total depth 44 feet. Lode in bottom full size of the winze, assaying 6 dwts. 12 grains of gold per ton. 245 south drive has been driven 19 feet 6 inches, total distance from main crosscut 497 feet 6 inches. Lode in the end 5 feet wide, assaying 12 grains of gold per ton. 483 feet south of main crosscut we have started No. 3 crosscut west, and have driven it 8 feet passing through three stringers of lode, assaying 12 grains of gold per ton. The end is in schist. Henty's shaft has been sunk 1 foot 9 inches, total depth from surface 370 feet 3 inches. The bottom of shaft is in hard schist. On November 24 the sinking was suspended. 341 south drive has been driven 38 feet 3 inches, total distance from the main crosscut 98 feet 6 inches. 94 feet from main crosscut we met with the lode. We are carrying about 3 feet of the hanging part of the lode, assaying 1 dwt. 6 grains of gold per ton.—173 north drive No. 1 crosscut west. 100 feet north of shaft has been driven 7 feet 9 inches, total distance from main level 69 feet 9 inches. No change.

MILLS' DAY DAWN.—Mine manager's report for fortnight ending October 19: Underlie shaft deepened 8 feet, total below 10 level 40 feet. 10 level west extended 7 feet, total length 41 feet, and now reduced to usual size.—9 level west, footwall level. Have

struck what is apparently the main footwall.—9 level. This level shows 4 feet of very fair stone. In the stopes the reef will average 15 inches of fair quality. The hanging-wall stopes have 18 inches of very good stone. Between winzes 1 and 2 there are 2 feet of reef going with the footwall, which is well worth a trial.—8 level west. No. 3 winze sunk 6 feet of rather poor stone. Hanging-wall stopes average 18 inches of good stone. On the footwall, stope 4 feet, but split up a good deal.—6 level. Bottom portion of footwall stope will carry 2 feet of good mineral stone. Stopes on either side of shaft will average 2 feet very fair stone.—No. 5 level. We are now through the slide, and have 2 feet of medium quality stone between two well-defined walls. No. 2 machine is rising and stoping on 2 feet of heavy mineral stone. There is a blank of about 50 feet, but the other drills are working on 15 inches medium quality.

MOSMAN.—Mine manager's report for fortnight ending October 26: North Australian. Work is proceeding as usual. Have raised 40 tons, and have 115 tons at grass, which I estimate to yield 35 dwts. per ton.—Peabody shaft. Deepend 22 feet; total from surface, 390 feet; we have met with what appears to be a make of stone, 3 feet thick, but though too early to say what it really is, colors of gold can be seen in it, and it contains a good quantity of mineral.—Wyndham shaft. Sinking is still difficult, owing to the slide. Have sunk 5 feet, making 105 feet below No. 14 levels.—13 Level North. Driven 25 feet; reef still white, and about 10 inches thick.—6 Level South. Winze is now 112 feet deep, and a good body of stone has come in.

MOUNT LYELL.—Mine manager's report for the week ending November. South drive, No. 3 tunnel. The face has been driven 7 feet, making the total length 495 feet. The pyrites are of the usual grade. The wall has made a sharp turn to the west.—Main crosscut, No. 4 tunnel. The crosscut has been advanced 5 feet, making the total length driven since resuming crosscutting 40 feet, and from the footwall of the pyrites 132 feet The pyrites have been much harder than usual.—North drive, No. 4 tunnel. The face has been advanced 3 feet, total 245 feet. There is no change, still in schist rock with thin band of pyrites showing.—South drive No. 4 tunnel. 6 feet has been driven, making the total length 400 feet. Country alongside pyrites wall schist. No. 5 tunnel. The tunnel has been advanced 5 ft., making the total length. 1142 feet. The rock for the 5 feet driven has been very hard, 4 feet back from the face, and on the right hand side of the tunnel pyrites are showing behind the belt of hard rock, and running nearly in the same direction as the tunnel. Two shifts are employed stripping the pyrites, but the rock is so hard that progress made is slow.—Progress report for week ending November 8: Hauling line. Forming of mine terminus in hand.—Smelter building. Roof over blast department nearly all laid, bins back of blast department erecting, ventilators finished. Bin approach trestles completed, forming of embankment of bin siding well in hand.—Crusher siding. Cutting carried forward to bins, and excavation for crusher house in progress.—Mill flue. Base in hand and ascent started. Main chimney progressing favourably.—Boilers. Begun concrete foundation. Excavation for furnace feed tank nearly completed. Clearing for pipeline from high pressure reservoir to tank.—Silica siding. Clearing for line. Weather bad and very wet.

NAMAQUA COPPER.—Abstract of superintendent's report for October:—Tweefontein Mine:—125 fathom level east. This driving is being carried about 9 feet wide, and looks likely to open up a valuable section of ground. The ore is chiefly blue and purple, but is mixed with a large proportion of iron. Worth 7 tons of ore per fathom.—105 fathom level west. There is no change to notice in the lode in this level, Worth 2 tons of ore per fathom.—Stopes. No. 1, back of 115 fathom level west. This stope is not of quite so much value. Worth 7 tons of ore per fathom.—No. 2, back of 105 fathom level west. This stope yields 8 tons of ore per fathom.—No. 3, at the 105 fathom level east. These stopes are yielding about the usual quantities of ore—viz., 8 tons per fathom.—No. 4, bottom of 95 fathom level east. These stopes are yielding about the usual quantities pr ore—viz., 8 tons per fathom.—No. 2 shaft—stopes:—Nos. 1 and 2. These stopes are still turning out as much ore as can be dealt with at surface. The yield is very satisfactory, and they are both worth 8 tons of ore per fathom.—No. 4 shaft. Intermediate level east. This level was driven east to a point directly above the north stope from No. 2 shaft.—Intermediate level east. No. 1 winze. This winze has been sunk to communicate with the north stope. The lode about here is of great breadth, and will yield large quantities of ore. Worth 8 tons of ore per fathom.—Intermediate level west. This point continues to turn out well. The breadth of the ore, as far as seen, is 20 feet, but more is standing on the south side. Worth 10 tons of ore per fathom.—No. 5 shaft. Four fathoms more will have to be sunk to reach the depth of the intermediate level now being driven west of No. 4 shaft. When this depth is attained a communication will be made between these points as quickly as possible.—Shipping. The *Golconda* arrived at Swansea on November 14 with about 750 tons of ore. The *Glenrafon* arrived at Port Nolloth to load on December 12.—Output for November, 600 tons of ore of 26 per cent.

OURO PRETO.—Passagem Mine report, October:—Incline shaft No. 1 was sunk 5·30 metres. The lode is still over the roof and breast is in quartzite. Incline shaft No. 2 was sunk 2·90 metres, and continues full size in quartz carrying patches of pyrites, and of somewhat better yield than formerly. 505 end north-east was driven 4·30 metres and carries a branch of ore against the roof, but as yet not much to value. 505 end south-west was driven 2·20 metres in schist carrying interstratified veins of tourmaline ore. 470 end north-east was driven 4·10 metres, and continues full size in ore of good yield. Crosscut at 470 north-east was driven 3·30 metres. It has now got through the lode, and for the last metre driving has been in footwall schist. 435 end north-east was driven 2·80 metres in stratified quartzite without ore. 435 end south-west was driven 1·80 metres in quartzite carrying small lines of quartz. End under 435 from No. 2 shaft was driven 3·90 metres, and continues full size in strong quartz lode. 400 end north-east was driven 5·10 metres. The ore has become pinched, but is now increasing in size again, and the end carries about 1 metre of quartz against the roof. Crosscut at 400 north-east was driven 4·20 metres. It has passed through the quartz against the hanging-wall, and is in stratified quartzite without ore. 365 end north-east was driven 4·20 metres. A bar of quartzite has split the lode, but quartz continues against the roof and along foot of level. Crosscut at 365 north-east was driven 3·70 metres in hard quartzite. 365 end south-west was driven 4·90 metres in schist with occasional small lines of ore. 315 end north-east was driven 2·70 metres in quartzite, carrying irregular lines and branches of quartz. Rise over 315 N.E. was advanced 1·60 metres in schist, carrying a small branch of ore against the hanging wall. 315 end S.W. was driven 5·40 metres. It carries about 1 metre thickness of decomposed ferruginous ore, which appears to be part of an ore shoot not met with at the upper levels. 215 end N.E. was driven 2.50 metres. Quartz lode is holding along the floor of the level, with schist against the roof. This end should now be in the Buraco Secco shoot, and it will soon be necessary to crosscut through the lode to ascertain the extent of the ore.—Stoping. The stopes at the 435 level show no change, the lode continuing of a strong massive character, and averaging over the 50 metres worked, a width of from 5 to 9 metres of clean milling ore of good yield. Some stoping has been done at the 470 level to take off corners and prepare ground for regular stoping, and the lode there looks very promising, and assays show rather over the average value. At the 400 level N.E. of No. 2 shaft the improvement has been maintained, and the lode in the north-east end carries 5 metres thickness of quartz. Between the shafts the No. 1 stope continues in strong productive lode 4 metres thick, but in the upper stope the lode carries a good deal of schist and quartzite, the ore occurring in branches. South-west at the 400 level, the stopes from rise 28 are in strong quartz lode carrying good pyritic ore throughout; the schist and quartzite formerly met with at this point have quite disappeared. At the 365 north-east the stope carries about 3 metres of quartz containing patches of pyrites, but the ore is of low grade. At the 365 south-west the lode in the south-west end of stope is a good deal mixed with quartzite, but near the shaft it consists of massive quartz nearly 5 metres thick of good average yield. At the 315 north-east stoping on the Buraco Secco shoot is still being carried on under the level to remove all the ore underfoot previous to building. The ore has held down much deeper than expected and at this point proves to be over 10 metres thick. South-west at the 315 level two stopes are being worked near rise 30 and though in places good branches of pyritic ore are met with the lode is of such a mixed nature that a very large amount of schist has to be broken with the ore. A pillar of ground standing along the bottom of 265 level is being stoped, and yields a fair amount of productive ore. Over the 265 level the stopes are advancing without change in lode about 3 metres thick, carrying pyrites and tourmaline ore. At the 215 north-east the two outer stopes have communicated, and form one large working 30 metres long, over which the ore averages nearly 5 metres thick, though it is rather low grade. The inner stope is still chiefly in schist, the ore branch found in other stopes not yet having risen to the breast of stope.—(Signed) Henry J. Gifford.

OOREGUM. — Superintendent's report for fortnight ending December 4:—Taylor's shaft. The excavations for top and bottom plats at 860 feet level are completed. The dimensions of latter are sufficient for a chute pass, which at this level is in the footwall, that being the most suitable position as the angle of shaft is not so great from the vertical. The sinking will be resumed forthwith, and at the same time the fixing of necessary timber for security of plats and construction of chute pass will be proceeded with. The 760 feet level south driven 26 feet 9 inches, total 421 feet 9 inches. Lode 4 inches wide, assay value 1 ounce 17 grains. No. 1 winze 760 feet level south sunk 5 feet 6 inches, total 46 feet. Lode 2 feet wide, assay value 2 ounces 1 dwt. 9 grains. No. 2 winze 760 feet level south sunk 5 feet, total 41 feet Lode 1 foot 6 inches wide, assay value 2 ounces 12 dwts. 16 grains. No. 3 winze 760 feet level south sunk 5 feet 9 inches, total 8 feet 9 inches. Lode 1 foot 6 inches wide, assay value 1 ounce 17 dwts. No. 2 rise 760 feet level south risen 10 feet 6 inches, total 33 feet 6 inches. Lode 1 foot wide, assay value 2 ounces 14 dwts. 10 grains. The 660 feet level south driven 13 feet, total 483 feet. Lode 6 inches wide, assay value 8 dwts. 17 grains. No. 2 winze 660 feet level south sunk 4 feet, total 51 feet. Lode 6 inches wide, assay value 9 dwts. 19 grains. No. 3 winze 660 feet level south sunk 6 feet, total 24 feet. Lode 6 inches wide, assay value 14 dwts. 4 grains. No. 3 winze 560 feet level south sunk 5 feet 3 inches, total 79 feet 9 inches. Lode 6 inches wide, assay value 12 dwts. Wallroth's shaft sunk 12 feet, total depth 1114 feet 6 inches. Lode 10 inches wide, assay value 7 dwts. The 1060 feet level south driven 17 feet 6 inches, total 130 feet 9 inches. Lode still small, no sample. The crosscut east 1060 feet level south extended 9 feet 9 inches, total 54 feet 3 inches. No change to notify in character of strata. The 1060 feet level north driven 18 feet, total 91 feet 6 inches. Lode 4 feet wide, assay value 12 dwts. The 960 feet level south driven 30 feet 9 inches, total 553 feet 3 inches. Lode small, no sample. No. 2 winze 960 feet level south sunk 5 feet 3 inches, total 43 feet 3 inches. Lode small. No sample. No. 1 winze 960 feet level north sunk 8 feet 6 inches, total 52 feet 6 inches. Lode 2 feet 6 inches wide, assay value 13 dwts. 2 grains. The 860 feet level south driven 31 feet 3 inches, total 866 feet. Lode 1 foot 6 inches wide, assay value 14 dwts. 4 grains. No. 3 winze 860 foot level south sunk 6 feet, total 88 feet 3 inches. Lode 1 foot 6 inches wide, assay value 10 dwts. 21 grains, No 4 winze 860 feet level south sunk 6 feet 9 inches, total 62 feet. Lode 1 foot 6 inches wide, assay value 8 dwts. 17 grains. No. 3 winze 760 feet level south sunk 6 feet, total 78 feet. Lode 3 inches wide, assay value 10 dwts. 21 grains. No. 5 winze 760 feet level south sunk 5 feet 6 inches, total 34 feet 6 inches. Lode 6 inches wide, assay value 12 dwts. No. 6 winze 760 feet level south sunk 8 feet 6 inches, total 40 feet. Lode 8 feet 6 inches wide, assay value 2 ounces 1 dwt. 9 grains. No. 2a. Rise 760 feet level south risen 10 feet 6 inches, total 53 feet 9 inches. Lode 1 foot 6 inches wide, assay value 9 dwts. 19 grains. No. 2 winze 760 feet level north sunk 3 feet 6 inches, total 101 feet 6 inches. Lode 9 inches wide, assay value 7 dwts. 15 grains, communicated with 860 feet level north. The level north from crosscut east 460 feet. Level south driven 22 feet 3 inches, total 118 feet. Lode 1 foot 9 inches wide, assay value 5 dwts. 12 grains. No. 1 winze, level north from crosscut east 460 feet level south commenced, sunk 9 feet. Lode 2 feet 6 inches wide, assay value 4 dwts. 8 grains. No. 5 winze 280 feet level north sunk 5 feet, total 59 feet. Lode contracted, no sample.—Low's shaft sunk 6 feet, total 796 feet 1 inch. The 710 feet level south driven 14 feet 9 inches, total 198 feet 9 inches. Lode 2 feet wide, assay value 3 dwts. 6 grains. No. 1 winze 710 feet level south sunk 8 feet, total 36 feet. Lode 2 feet 6 inches wide, assay value 5 dwts. 12 grains. The 710 feet level south driving north on lode from point of intersection driven 15 feet, total 85 feet 6 inches. The lode for the first 5 feet became gradually smaller, until it struck the big dyke, in which we are now driving, with the intention of going through it to ascertain the size and value of lode on the other side. No. 1 winze 710 feet level south driving north on lode from point of intersection sunk 5 feet, total 19 feet. Lode 1 foot 9 inches wide, assay value 4 dwts. 8 grains. No. 1a winze 610 feet level south sunk 3 feet, total 20 feet 6 inches. Lode 9 inches wide, assay value 2 ounces 14 dwts. 10 grains.—Probyn's shaft. The crosscut east 1150 feet level north extended 11 feet, total 35 feet 6 inches. The level east of south 1050 level south driven 12 feet 9 inches, total 69 feet 3 inches. Lode 3 inches wide, assay value 4 dwts. 8 grains. No. 1 winze 1050 feet level north sunk 5 feet, total 83 feet. Lode 4 inches wide, assay value 3 dwts. 6 grains. No. 1 winze 950 feet level south sunk 3 feet, total 103 feet 9 inches. Lode 3 inches wide, assay value 2 dwts. 4 grains. The No. 4 rise 550 feet level south commenced risen 14 feet 3 inches. Lode 1 foot wide, assay value 1 ounce 10 dwts.—Stopes for the month of November: Taylor's shaft. Cutting plats at 860 feet level 16¾ fathoms. Back of 760 feet level south stoped 20 fathoms, average width of lode 4 feet 2 inches, assay value 2 ounces 17 dwts. 23 grains. Back of 660 feet level south stoped 3½ fathoms, width of lode 1 foot 4 inches, assay value 2 ounces 11 dwts. 3 grains. Bottom of 560 feet level south stoped 34 fathoms, width of lode 2 feet, assay value 1 ounce 16 dwts. 11 grains. Bottom of 460 feet level south stoped 64½ fathoms, width of lode 3 feet 8 inches, assay value 17 dwts. 1 grain. Back of 460 feet level south stoped 6½ fathoms, width of lode 2 feet 6 inches, assay value 10 dwts. 21 grains. Bottom of 360 feet level south stoped 15 fathoms, width of lode 1 foot 6 inches, assay value 8 dwts. 17 grains. Bottom of level south from back of No. 4 rise 280 feet level south stoped 5½ fathoms, width of lode 1 foot 6 inches, assay value 3 ounces 16 dwts. 5 grains. Bottom of level north from back of No. 4 rise 280 feet level south stoped 5½ fathoms width of lode 1 foot 6 inches, assay value 2 ounces 12 dwts. 16 grains.—Wallroth's shaft. Back of 760 feet level south stoped 12½ fathoms, width of lode 3 feet 6 inches, assay value 1 ounce 3 grains. Bottom of 660 feet level south stoped 3½ fathoms, width of lode 1 foot 6 inches, assay value 1 ounce 17 grains. Back of 660 level south stoped 10 fathoms, width of lode 2 feet, assay value 1 ounce 13 dwts. 8 grains. Bottom of 660 feet level north stoped 5½ fathoms, width of lode 1 foot 3 inches, assay value 9 dwts. 19 grains. Bottom of 560 level south stoped 10¾ fathoms, width of lode 3 feet 10 inches, assay value 1 ounce 13 dwts. 8 grains. Back of 560 feet level south stoped 32¾ fathoms, width of lode 2 feet 4 inches, assay value 1 ounce 3 dwts. 23 grains. Bottom of 560 feet level north stoped 14½ fathoms, width of lode 2 feet 3 inches, assay value 2 ounces 6 dwts. 5 grains. Bottom of 460 feet level south stoped 18¼ fathoms, width of lode 2 feet, assay value 1 ounce 23 grains. Back of 460 feet level south stoped 9½ fathoms, width of lode 3 feet, assay value 1 ounce 12 dwts. 16 grains. Back of 460 feet level south stoped 9½ fathoms, width of lode 3 feet, assay value 1 ounce 12 dwts. 16 grains. Back of level south from crosscut east, 460 feet level south stoped 6¾ fathoms, width of lode 1 foot 9 inches, assay value 5 dwts. 10 grains. Bottom of 460 feet level north stoped 4½ fathoms, width of lode 3 feet, assay value 2 ounces 8 dwts. 21 grains. Bottom of 360 feet level south stoped 26½ fathoms, width of lode 2 feet, assay value 2 ounces 2 dwts. 4 grains. Back of 360 level south stoped 2½ fathoms, width of lode 1 foot 3 inches, assay value 1 ounce 12 dwts. 16 grains. Bottom of 360 feet level north stoped 4 fathoms, width of lode 1 foot 9 inches, assay value 17 dwts. 10 grains. Bottom of 280 feet level south stoped 9 fathoms, width of lode 2 feet of 3 inches, assay value 7 dwts. 14 grains. Bottom of 215 feet level north stoped 35½ fathoms, width of lode 1 foot 2 inches, assay value 1 ounce 10 dwts. 9 grains. Back of 215 feet level north stoped 1¾ fathom, width of lode 9 inches, assay value 4 dwts. 8 grains.—Low's shaft. Bottom of 610 feet level south stoped 9 fathoms, width of lode 1 foot 10 inches, assay value 10 dwts. 9 grains. Back of 610 feet level south stoped 4 fathoms, width of lode 1 foot 6 inches, assay value 17 dwts. 10 grains. Bottom of 510 feet level south stoped 11¾ fathom, width of lode 1 foot 10 inches, assay value 19 dwts. 1 grain.—Probyn's shaft. Back of 550 feet level south stoped 2¼ fathoms, width of lode 2 feet 6 inches, assay value 13 dwts. 2 grains.—Exploratory work. Taylor's shaft. Crosscut west 460 feet level south extended 11 feet, total 27 feet; no discovery.—Wallroth's shaft. No. 1 crosscut east 280 feet level south extended 3 feet 4 inches, total 17 feet 4 inches.—Low's shaft. Crosscut west 280 feet level south extended 20 feet 6 inches, total 40 feet 6 inches; no discovery, suspended. During the month of November we crushed 4599 tons of quartz, which produced 4819 ounces of gold. In addition to this 4794 tons of tailings were treated which yielded 1226 ounces of gold, total return 6045 ounces of gold.

SELUKWE DEVELOPMENT.—Mine manager's report, dated November 14: Main shaft sunk 5 feet, total 141 feet. McKinnon's shaft sunk 1 foot, total 117 feet, reef at 115 feet 30 inches wide, assay 17 dwts. North shaft No. 3 sunk 6 feet, total 55 feet, reef at 52 feet 12 inches wide, assay 12 dwts. West crosscut north drive driven 3 feet, total 29 feet, reef at 27 feet 48 inches wide, assay 10 dwts. West crosscut south drive driven 3 feet, total 35 feet, reef at 34 feet 30 inches wide, assay 40 dwts. 300 feet shaft south sunk 6 feet, total 19 feet. 600 feet shaft south, total 47 feet, reef at 42 feet 62 inches wide, assay 11 dwts., reef at 45 feet 30 inches wide, assay 5 dwts. South end drive driven 22 feet, total 53 feet, reef at 19 feet 12 inches wide, assay 1 dwt., reef at 22 feet 12 inches wide, reef at 25 feet 12 inches wide, assay colour, reef at 28 feet 16 inches wide, assay 2 dwts. Work suspended at McKinnon's shaft on account of bad air.

SPITZKOP FARM.—Under date November 25 the manager writes as follows:—Leader Hill. One monitor worked 30 hours, stripping over burden. Five drives and four crosscuts in progress, average size of reef about 12 inches, quality of ore good. No 4 drive at a distance of 70 feet from the entrance, and on to the face a distance of 20 feet, shows ore of a very high grade, good for 2 ounces to the ton.

TOLIMA.—The directors have received advices by the mail of December 19 from their mines, of which the following is an abstract:—Fri is estimated October returns fine silver, valued at 33d. per ounce, £4386 4s., cost, £3457 17s. 9d.; profit, £928 6s. 3d. The underground agent reports 103 fathoms 1 foot 1 inch of ground expended, of which 74 fathoms 2 feet 6 inches were productive, leaving 28 fathoms 4 feet 7 inches of unproductive ground. The superintendent, writing under date of November 15, reports that the engine shaft has attained a depth of 12 feet below the 150 fathom level, and that the prospecting winze, which is being sunk from the 150 fathom level, had, at a depth of 13 feet below that level, improved in yield—the mineral there extracted assaying the remarkably high grade of 8395 ounces of fine silver to the ton, the volume of yield being meanwhile at the rate of 1 ton to the fathom. In communicating this most satisfactory information the superintendent adds that he hopes this winze will, by the end of the year, have nearly reached the 160 fathom level. He adds that the 130 fathom west end continues to yield about 10 cwts. to the fathom, and that although the lode is rather pinched, he is sanguine that it will improve further ahead. The workings on the 110 fathom level north branch continues to develop in the most satisfactory manner, yielding ore of very high grade, of which the average assay is 600 ounces of fine silver to the ton. In the Real de Frias Mine better progress is reported during October, more especially in the 35 fathom west end, where the ground has become easier.—Underground report: Engine shaft was sunk 8·3 feet by 10 men and a boring machine at $300 per fathom, thus being 72·3 feet as total depth below the sole of the 140 fathom level, and it is without change to note. 150 fathom crosscut to engine shaft was driven 11·5 feet by four men at $130 per fathom, thus being 20 feet as total length, and it is communicated to engine shaft. 150 fathom west end footwall side was driven 11·5 feet by two men at $70 per fathom, and the lode remains unchanged. 150 fathom east end was driven 17 feet by two men at $70 per fathom, and the lode remains poor. 140 west end was driven 10·5 feet by two men at $80 per fathom, and the lode is without change to note. 140 fathom east end was driven 9·7 feet by 4 men at $130 per fathom, thus being 349 feet as total east of the west winze, and the lode remains very narrow and poor. 140 fathom east back stope No. 1 was stoped 61·3 feet by four men at $20 per fathom, and it yielded 2 tons of mineral per fathom. 130 fathom west end was driven 9·6 feet by two men at $85 per fathom, thus being 533 feet as total west of the west winze. The lode shows a decline, and it yielded on an average 15 cwts. of mineral per fathom. 130 fathom west back stope No. 1 was stoped 35·3 feet by four men at $35 per fathom, and it yielded 15 cwts. of mineral per fathom. 130 fathom east back stope No. 1 was stoped 35 feet by four men at $40 per fathom, and it yielded 6 tons of mineral per fathom. 130 fathom east back stope No. 1a was stoped 19·5 feet by four men at $40 per fathom, and it yielded 5 tons of mineral per fathom. 130 fathom east back stope No. 1b was stoped 28 feet by four men at $30 per fathom, and it yielded 4 tons of mineral per fathom. 130 fathom east back stope No. 2 was stoped 27 feet by two men at $35 per fathom, and it yielded 5 cwts. of mineral per fathom. 130 fathom east end from 120 east winze No. 2 was driven 15·5 feet by two men at $63 per fathom. The lode is well defined but yet poor, and it is for the time being suspended until it can be better ventilated. 130 fathom east winze No. 1 was sunk 6·5 feet at $150 per fathom, thus being 65 feet as total depth below the sole of the 130 fathom level, and the lode is unchanged, and sinking is suspended. 140 fathom west end from 130 east winze No. 1 was driven 14 feet by four men at $70 per fathom upon a very strong and promising lode. Our object in this is to communicate with the 140 east end main level as soon as possible, so as to better ventilate this part of the mine, and also for the development of the lode. 120 fathom west back stope No. 3 was stoped 25·3 feet by two men at $25 per fathom, and it yielded 2 tons of mineral per fathom. 120 fathom west back stope No. 3a was stoped 35 feet by four men at $35 per fathom, and it yielded 2 tons of mineral per fathom. 120 fathom west back stope No. 3b was stoped 24 feet by two men at $20 per fathom, and it yielded 1 ton of mineral per fathom. 120 fathom west back stope No. 3c was stoped 9 feet on company account, and it yielded 10 cwts. of mineral per fathom. 110 fathom east end was driven 16·6 feet by two men at $67 per fathom, thus being 979·9 feet as total east of the engine shaft, and the lode is without change to note. 110 fathom east end bottom stope No. 2 was stoped 16 feet on company account, and it yielded 1 ton of mineral per fathom. 110 fathom east end north branch was driven 13 feet by two men at $85 per fathom, and it yielded 15 cwts. of mineral per fathom, the mineral being much stronger in sole than in the roof of the level. 110 fathom west end north branch was driven 12 feet by two men at $65 per fathom, and it yielded 1½ ton of mineral per fathom and the mineral is stronger in roof than in the sole of the level. 110 fathom west winze north branch was sunk 22·2 feet by eight men at $145 per fathom, thus being 53·7 feet as total depth below the sole of the 110 fathom level, and it has yielded 1¾ ton of high grade mineral per fathom, although the present bottom shows a decline. 100 fathom west end was driven 7·5 feet by two men at $70 per fathom, thus being 311·5 feet as total west of engine shaft, and the lode, although poor, is yet it is strong and well defined. 90 fathom east end was driven 26 feet by two men at $70 per fathom, thus being 1164·8 feet as total east of the engine shaft, and the lode is unchanged. 90 fathom east bottom stope No. 1 was stoped 47·7 feet by two men at $20 per fathom, and it yielded 2 tons of mineral per fathom. 90 fathom east back stope No. 2 was stoped 26·6 feet by two men at $25 per fathom, and it yielded 15 cwts. of

mineral per fathom. Shallow adit was driven 14 feet by four men and a boring machine at $75 per fathom, thus being 388 feet as total west of the crosscut, and the lode is tighter to work and remains poor. West end from new crosscut was driven 4 feet by two men at $150 per fathom. Owing to the lode having been "heaved," driving has been suspended upon the above part, and the men put to drive at a point 100 feet west of the crosscut in a southerly direction.—Real de Frias. 35 fathom west end was driven 34 feet by four men at $50 per fathom, and the lode remains poor. 35 fathom east end was driven 15·5 feet by four men and a boring machine, at $80 per fathom, and the lode is without change.

BIG BLOW.—The following fortnightly report, dated November 19, has been received from the mine manager (Mr. W. M. Vivian):—For the past fortnight I beg to report as follows: Battery. Owing to the continued dearth of the necessary skilled labour, but little progress has been made towards the erection of this.—Engine. Our only engine-fitter, after a long spell of sickness, recovered sufficiently to attend for a few days, during which he succeeded in making the steam connections with the boilers. He is now back in the hospital again.—Boilers. These are now built in, flues finished, and the chimney stack finished; consequently, are all ready for work.—Water shaft. This has been sunk a further distance of 7 feet 6 inches, making the total depth 258 feet 6 inches. The influx of water is slightly less than it was, and the hard diorite still exists at the bottom of the shaft.—Tramway. The grading for the tramway from the reefs to the battery is in a forward condition.—General. Our other operations have been condensing water for drinking purposes, burning charcoal, sawing timber, and getting in a supply of firewood.

BRITISH BROKEN HILL.—Mining manager's report for the week ending November 13:—Blackwood shaft. 300 level west crosscut lengthened 9 feet, total from plat 86 feet, face unchanged. 200 level. No. 1 winze sunk 4 feet, total depth 58 feet, bottom in milling sulphides. Have been cleaning out sulphide reserve stacked in stopes around No. 1 winze. North drive off long crosscut driven 6 feet, total 44 feet, but lode much disturbed in face; are turning off eastwards to encounter sulphide lode again. South drive extended 6 feet through splendid sulphide ore. Total length 22 feet. Lode looks very well in face. We mined 23 tons sulphides, averaging 25 per cent. lead 15 ounces silver and 22 per cent. zinc.—Howell shaft. 300 level west crosscut advanced 9 feet, total from plat 162 feet. Country unchanged, but better progress now being made with aid of machine drill. Have started driving southwards off east crosscut, and extended same 5 feet through fair grade sulphides. We mined from this drive 9 tons sulphides, assaying 19 per cent. lead 6 ounces silver and 19 per cent. zinc. 200 level. South drive off No. 2 west crosscut lengthened 6 feet, total 41 feet, with good sulphide ore showing everywhere. We mined from this drive 27 tons, assaying 22 per cent. lead, 12 ounces silver, and 24 per cent. No. 2 west crosscut advanced 4 feet, total 21 feet from timbers, face entering hard country, and are stopping work in consequence. We obtained 2 tons sulphides, assaying 20 per cent. lead, 10 ounces silver, and 26 per cent. zinc, Are transferring men into south drive, where a chamber will be excavated to allow winze to be sunk to 300 level.—Junction 300 level. North drive driven 6 feet, total 88 feet; face in mixture of hard sulphides and sandstone.—Surface. Good progress being made with erection of new jig plant, also with alterations to brace of Howell shaft poppet heads.—Ore shipments. Last week's parcel sulphide ore to Block 14 mine (124 tons gross) contained 1596 ounces silver and 33 tons lead, We despatched another lot to them during week weighing 135 tons gross. Week's assays of sulphide ore vary from 3 to 28 per cent. lead, 4·9 to 25 per cent. zinc, and 2·4 to 17·3 ounces silver per ton.

CRAVEN'S CALEDONIA.—The following fortnighly report has been received from the mine, dated Charters Towers, November 7: In the underhand stope from No. 8 level the reef is the same as last reported. In the end of the crosscut I have started a winze, and it has been sunk 8 feet for the fortnight, and there is about 5 inches of stone in the bottom. In the three stopes over the old No. 8 level the reef averages about 8 inches of good quality stone. In the three stopes over the hanging-wall reef the stone averages about 9 inches. No. 7 crosscut has been extended a further 15 feet for the fortnight, making a total of 125 feet from the starting point. Bunce and party have got about 14 tons of stone from the stulling over No. 7 old level. Hooper and party have extended No. 6 level a further 5 feet, making a total of 379 feet. The reef in this level is about 4 inches, and they have got about 11 tons of stone broken. Bowater and party have extended No. 5 level a further 5 feet, making a total of 410 feet from the shaft. The reef in this level is about 5 inches thick, and they have got about 15 tons of stone broken. On the 28th ult. Slade and party started to pick the stulling over No. 6 level, and they are making fair progress. The haulage of quartz for the company for this fortnight is 30 tons, making a total of 78 tons in the paddock.—(Signed) G. Cabassi.

KINSELLA.—Mining report for fortnight ending November 14: Mine 100 feet level. The ore body north and south of main shaft is increasing in thickness in both drives, the former showing a thickness of fully 12 feet. Samples from both drives have been frequently taken, the results in each case not exceeding 8 dwts. per ton. There is yet 55 feet driving to be done north to reach No. 1 north shaft, and 95 feet south to reach No. 1 south shaft. Unless some unforeseen difficulty arises, a communication will be effected about the end of the year with these shafts, or which may be properly called winzes. No. 2 shaft south is showing first grade ore 17 feet below 43 feet level, or 60 feet below the surface; sinking by men will be continued until the 100 feet level is reached. The foreman has tried several samples, and appears very sanguine of the value.—Foreman's report, I have the honour to report that during the past fortnight the following work has been carried out at the main shaft 100 feet level. The north drive has been extended a further distance of 32 feet, total distance from crosscut 65 feet. The lode is 7 feet wide, but of very poor quality, samples tested showing only a trace of gold at present. A body of stone is coming in from the east and joining the main lode. This stone is of much better appearance than the main lode, and may be carrying better gold. As soon as possible I purpose breaking into this stone and finding the east wall, and in a few shifts will be able to report more fully on it. In the south drive 100 feet level the drive has been driven a further distance of 41 feet. It has been driven a total distance of 106 feet from crosscut. The lode has varied from 1 foot to 3 feet in width, and at present is about 15 inches thick. Samples tested from the lode have given from a trace of gold to a value of 8 dwts. to the ton. As some quartz leaders run into the west wall with a quantity of water running from them, a short crosscut was driven to the west to test the country, but nothing was found except a few broken quartz leaders.—Note. I am inclined to think these leaders are the tail end of a body of quartz overhead, and it may be wise to crosscut again further on. No. 1 north shaft 43 feet level has been sunk a further depth of 9 feet, total 17 feet. The lode is fully 8 wide, and as it is necessary to push on with this winze we are leaving part of the lode on the east wall. The stone for the last few days has been of poor quality, and according to samples tested, shows a value of 5 dwts. per ton. I think it would be wise to carry this winze through on the west side of the lode to obtain ventilation as soon as possible. No. 1 south shaft 43 feet level has been a further depth of 12 feet, owing to the two men leaving that were working here; it has been stopped for a few days, but as I have obtained two more men the work is being proceeded with.—No. 2 shaft 43 feet level. A further depth of 12 feet has been sunk, total depth 17 feet. The lode is 4 feet wide and shows gold freely, and I value the stone at 2 ounces per ton. I have started two men stoping stone at No. 1 north shaft to help keep up the supply of stone for the battery. I have also had two men opening plat, enlarging crosscut, and timbering same on south side of main shaft 100 feet level. The battery has been started and runs smoothly and well. Have hauled water 5193 tanks, quartz 462 trucks, mullock 267 trucks.

MENZIES WATERWORKS.—Extract from a letter received on 24th inst. from Mr. John Reid at Coolgardie, dated November 19:—Menzies waterworks. Some pumping machinery is now on the way out, and the whole of it will shortly be delivered on the site. The drains are cut in the lake, well sunk, foundations prepared, and track cut to the mines. No pipes have arrived yet. If they were here the work could soon be completed. The water comes in very freely from the sides of the drains between 3 and 4 feet deep, and there is now between 60,000 and 70,00 gallons of water standing in them.

NO. 7 NORTH-EAST QUEEN.—The fortnighty report has been received from the mine, dated Charters, November 8: During the fortnight I beg to report that Jordan and party have crushed 44 tons for a yield of 16 ounces 1 dwt. 9 grains of smelted gold. They continued on with their block, although there is very little stone in the face at present. Hamilton and party also crushed 22 tons 15 cwts. for a return of 25 ounces 14 dwts. 9 grains of smelted gold. The drive put in by this party is in at present abont 53 feet from the shaft, with no stone in the face. In the stope at the back of the level there is from 8 to 10 inches of stone, mixed with patches of grey diorite. They have commenced underhand stoping on about 4 inches of good quality stone. Wilkinson below No. 2 level west has 12 to 15 inches of stone of good quality in his stope, but there is not much of this left, as he is nearly up to the level. Balch and party have a considerable improvement in their drive this week. There is at present 2 feet of fair quality stone in the face of the drive, which seems to be making stronger going down towards No. 3. Ferguson and party in No. 3 east are rising to meet the stone worked by Balch and party are up a distance of 28 feet. I have also let a block of ground inside the last-named party to Kemp and party. They are at present continuing the long rise (put up by the company) previous to starting a drive towards the shaft. Wherry and party have 12 to 18 inches of good stone in the face just now of good quality. Everything about the mine is in fair working order. We have hauled about 7 tons 10 cwts. of quartz this fortnight, but there is a good lot broken below.—John T. L. Williams, manager.

SALISBURY MURCHISON.—The following are extracts from the report of Mr. Edwin Wallis, the company's general manager, dated November 16: Received December 23: Salisbury: Six men have sunk the underlay shaft 19 feet during the fortnight, making full depth 124 feet, or about 90 feet vertical from the surface. The water met with up to the present is equal to 150 gallons in eight hours. This quantity being up to our present requirements, I have commenced sinking the main engine shaft, and hope to be down the full depth of 100 feet by the time the winding engine is erected. Operations upon this property should be pushed on with vigour, and I think it will be found to be one of best claims of the field.—Agamemnon. In my letter of November 2 I informed you of my intention to sink two small prospecting shafts on this lease—one near the boundary of the Tasmanian, and the other towards the North Agamemnon end. The former of these struck stone at 9 feet deep, with gold showing on reef, which I am following down on the under lay. Present depth 15 feet. Lode about 1 foot wide. The shaft towards the North Agamemnon lease struck the track of the reef at 19 feet from the surface lying on an opaline formation not favourable, in my opinion, for the existence of a lode. I have, therefore, commenced sinking the engine-shaft in the most suitable position to cut the reef at about 130 or 140 feet vertical, at which point I hope to meet with water. The size of this shaft is 6 by 3 in the clear, and will be timbered with mulga, and will cost about 10s. per vertical foot in depth. Sawn timber would cost £3 per foot, and scarce at that price.—Tasmanian, 10 feet has been driven during the fortnight, making 19 feet from shaft. There is no change in the appearance of the reef in this direction. As soon as I can make arrangements for timber I shall start sinking a vertical shaft on this lease similar to that now going down on the Agamemnon property.

NEW QUEEN.—The following fortnightly report has been received from the mine, dated Charters Towers, November 7:—30-31, St. Swithin's-lane, E.C., December 23.—No. 4 south level footwall. Stoping has been carried on both over and under this level. The reef continues very irregular, varying from a leader to 9 inches. The winze under the level has been connected with No. 2 formation. The opening out of this block and the extension of the level is being pushed ahead as speedily as possible, and as soon as this very necessary work is finished I hope to be able to work the footwall to much better advantage.—No. 5A south level, The winze under this level has been sunk a depth of 15 feet under the level; the reef is about 6 inches.—No. 4 formation, No. 3 north level. Stoping is being carried on over this level. The reef continues very bunchy—from 3 to 9 inches. The formation in places opening out to nearly 8 feet wide, and a lot of ground has to be removed for the quantity of stone obtained,—Straight shaft. The straight shaft has been sunk a further depth of 20 feet, making it 267 feet from No. 4 plat and 1270 feet from the surface. We have timbered 47 feet during the past fortnight. A considerable amount of water is coming from the bottom. The sink, on taking it up to-day, shows about 15 inches of white stone, and there is a decided improvement in the quality of the reef, and it is fairly mineralised. Considerable trouble has been experienced for want of sufficient water for the boiler. All the available water has been used. Quantity of stone raised for the fortnight:—No. 4, south level footwall, 214 trucks; No. 2 formation, 12 trucks; No. 5a south level, 8 trucks; No. 4 formation, 92 trucks; total, 320 trucks.—(Signed) W. Henderson.

IVANHOE. — Kalgoorlie, November 7: The mine manager reports: South main drive extended 8 feet, total from shaft 192 feet; no change to report. Nos. 2 and 3 stopes are breaking good payable stone. No 1 stope, no stone broken this week. Have been engaged getting ready for filling stopes. No. 5 shaft sunk and timbered 5 feet, full depth from surface 36 feet; lode smaller in shaft at present, being 2 feet wide, and carries nice coarse gold in the solid stone. By telegraph, November 18. South drive at 100 feet level in 203 feet, ore improving in value. South shaft, good gold. By telegraph, dated Kalgoorlie, November 14. Crushed 91 tons for 136 ounces gold.

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COLORADO.

COLORADO SPRINGS, COLO., DECEMBER 7.

So far as mining stock speculation is concerned, the outlook at the close was brighter than ever. There were many sharp advances during the week throughout the entire list. The only declines of any consequence were in the silver stocks, and those best in a position to understand are positive that these will remain inactive indefinitely. Mining stock exchanges are springing up all over the country. The treasuries of numerous companies that are not producing are being replenished with funds from large sales of treasury stock, and this will result in the development of outside portions of Cripple Creek. That the district is expanding is beyond question. Among the stocks that have made the greatest advance during the week is Enterprise, as the present quotation compared with those of last week eminently testify; and as near as can be ascertained the condition of the property thoroughly justifies present prices. The Denver market is steadily improving, and public attention to mining stock speculation is marvellous to behold. Large profits are still to be made in the cheaper stocks to those who display a little discretion and common sense. Gold and Globe must materially advance in the near future, as the property is showing up far beyond the most sanguine expectations of those who wish it success. Dante will probably go considerably higher, as the property is shipping and the company are making money. Gold Standard is looking well and has a bright future before it. Union should also advance, and of late several good strikes have been made in the property. All things carefully considered, Cripple Creek Consolidated should sell higher. Isabella is about holding its own amid a general scramble for profit-taking on the part of several large holders. Pharmacist is looking better than ever, but for some unaccountable reason it does not enjoy public favour. Matoa is the coming stock, and well it should be. It deserves more consideration than it is now receiving, and when the public become advised of its true merits look out for a higher quotation. Summit, Work, Nugget, Magna Charta, Mount Rosa, and Boston and Colorado are all good purchases, especially the latter for a cheap stock. At present it is practically unknown, but it is fast asserting its right and recognition. This company is capitalised for 1,300,000 shares, 500,000 of which still remain in the treasury, besides a large cash on hand for development purposes, with no indebtedness whatever. They own the Climax No. 3, the Anna B and Kismet Extension, all on Squaw mountain; also Bandero and Medina located on the east slope of Bull and the Midland Fraction, near the Longfellows. Climax No. 3 is the only portion of the territory that is leased. The balance will be operated under the direction of the company, which fortunately enjoys first-class management. Those who are contemplating the purchase of low-priced stock, with good values behind it, will do well to thoroughly investigate this company. Of course, there are a few stocks that are apparently selling somewhat high, but with the present large demand for gold stocks, they will be carried along, and probably increase in price. The growing production of Cripple Creek, and strict attention to business principles in conducting the affairs of mining companies, will prevent any reaction of any consequence; look out for a large number of companies being added to the dividend-paying list early in 1896.

F. H. PETTINGELL.

HAMBURG, December 21.

De Beers moved between the extremes of £24, and £26⅛ and closed to-day at £24, sellers having dropped to £23¼ for a short time to-day. As I had predicted, interested circles at different times made strong exertions to raise the price and succeeded easily, business being so restricted that small purchases would cause a considerable effect. But whenever it was tried to unload, prices immediately fell back to their former level, and justly, so for I consider even the lowest price of the period much too high for the present position and prospects of the company.

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Consolidated improved gradually and are now quoted 30s. to 30s. 6d. It would, however, be erroneous to suppose that one can currently buy or sell at these prices. The seller of a large parcel would find it difficult to dispose of it at the lower price even, while a buyer would, at least, not be certain to procure a large lot even at the higher price. On the whole, I think, however, that buyers have the best of it.

In the gold share market prices were very wide, much wider than in De Beers, variations in many cases being up to 20 per cent. even in the best stocks, and 50 per cent. in the more speculative ones. But it is of little moment to follow them in leaps and bounds. Chartered f.i. were £4⅜ on November 20, £6 3-16 on December 3, and closed to-day £4⅛. East Rands were £6 3-16 on November 28, £4¼ on December 14 and closed to-day £4⅜.

LUDWIG J. LIPPERT.

COMBINATION IN THE METAL TRADE.—With reference to the recent reports as to a combination in the local metal trades, the *Birmingham Daily Post* has ascertained the following particulars: An association, called "The Metal Manufacturers' Association," has been formed. The objects of the association are for the regulating of the conditions of purchasing raw material whenever necessary; the maintenance of fair selling prices, which at present are unremunerative owing to the severe "cutting"; and the formation of an alliance with the workpeople. At present the membership is confined to firms or companies manufacturing metal, wire, brazed tubes, or rolling metal for hire. Several meetings have already been held, and on Tuesday last the rules of the association were passed. A large proportion of the members of the trade have joined the association, and there are a few firms opposed to the movement; but the promoters are confident that when the alliance with the workpeople has been consummated, all opposition will be at once removed. The services of Mr. E. J. Smith have been secured to effect the necessary organisation. We understand that a special committee will be appointed at the next meeting, whose duty will be to investigate all rumours of foreign competition, to ascertain the real position which foreign competition holds in the trade, and to recommend the steps necessary to be taken by united action to prevent such foreign competition from doing any injury to the trade.

HUXLEY MEMORIAL.—Since the first meeting of the general committee on the 27th ult., which was fully reported by the Press, two meetings of the executive committee have been held. At the first of these, at which Lord Shand accepted the office of Chairman, it was reported that a number of foreigners of eminence had expressed a wish to be associated with the proposal to commemorate Mr. Huxley's distinguished services to humanity. It was resolved, in the first instance, to invite subscriptions from the members of the general committee. At the second meeting, held on Wednesday, it was reported that the subscriptions, which at the general meeting had amounted to £557, had been increased to about £1400, and it was resolved that a wider appeal for subscriptions should now be made to the friends and admirers of Mr. Huxley amongst the general public.—The Honorary Secretary stated that in America committees were in the course of being formed to promote the realisation of an adequate fund. The committee resolved to communicate, by means of a sub-committee of their number, with Mr. Onslow Ford, R.A., who had the advantage of being well acquainted with Mr. Huxley, in reference to the statue which it is proposed should be erected beside those of Darwin and Owen in the Natural History Museum, South Kensington. The extent to which the committee may be able to carry on the other intended objects of founding exhibitions and scholarships, and medals for biological research and lectureships, and possibly in assisting the republication of Mr. Huxley's scientific works, will, of course, depend on the subscriptions, which may now be received. These may be sent to the treasurer, Sir John Lubbock; or to the bankers, Messrs. Robarts, Lubbock, and Co. (15, Lombard-street, E.C.); or to the secretary, Professor G. B. Howes (Royal College of Science, South Kensington). The amount received to date is £1535.

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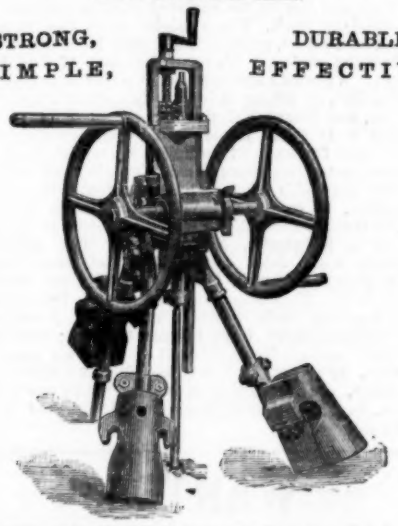

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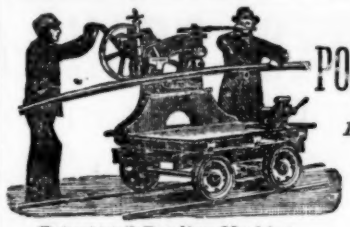

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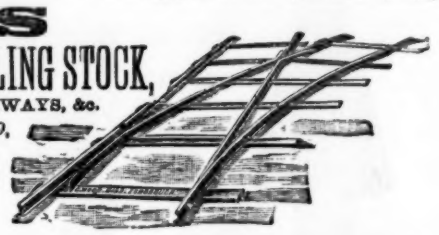

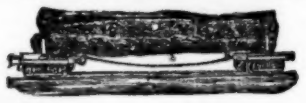

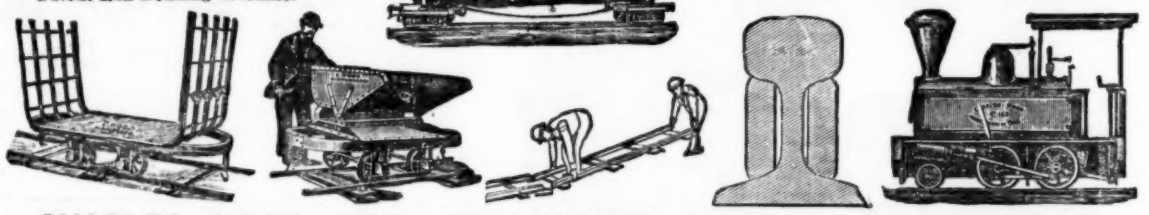

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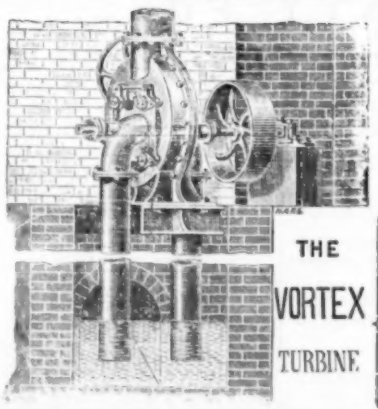

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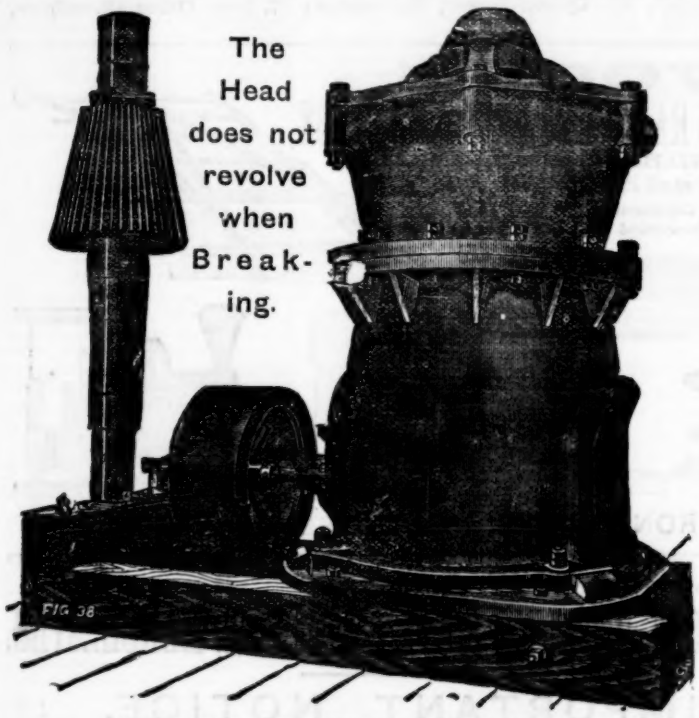

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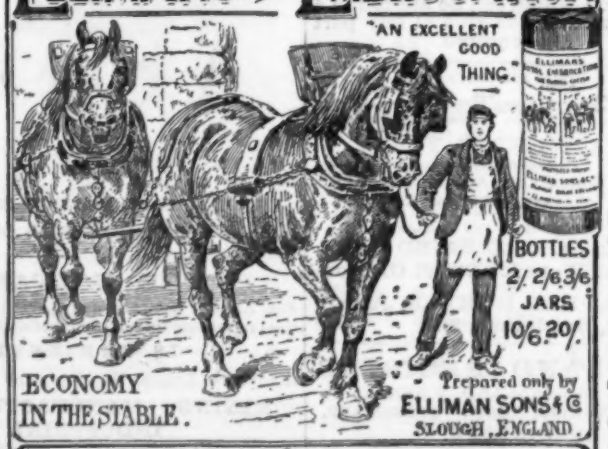

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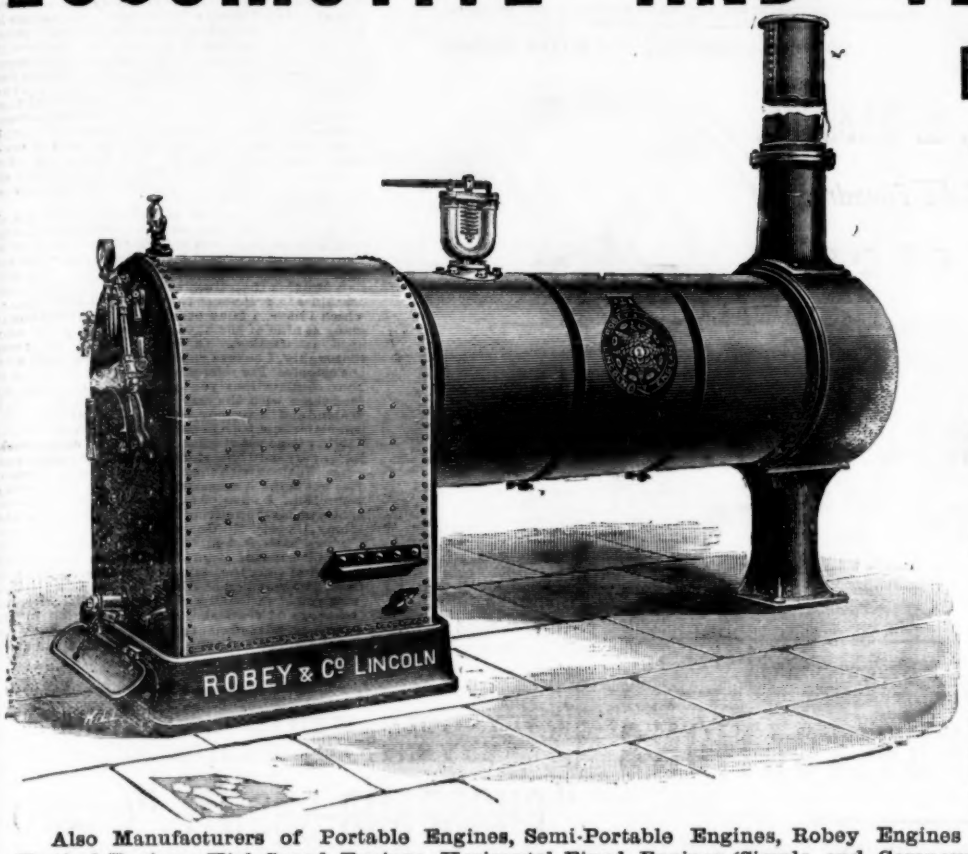

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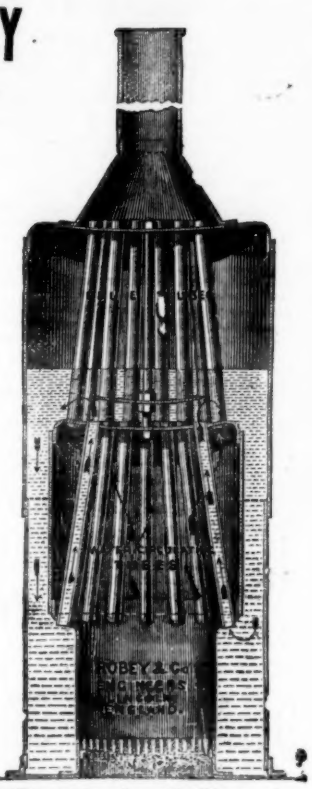

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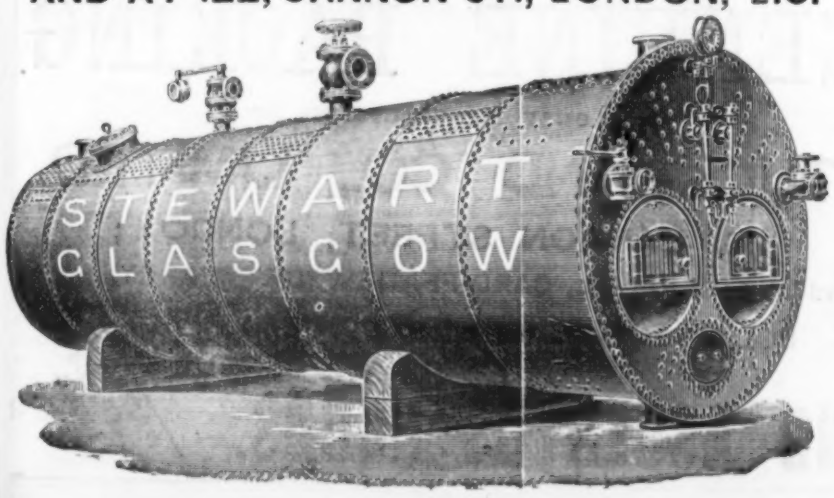

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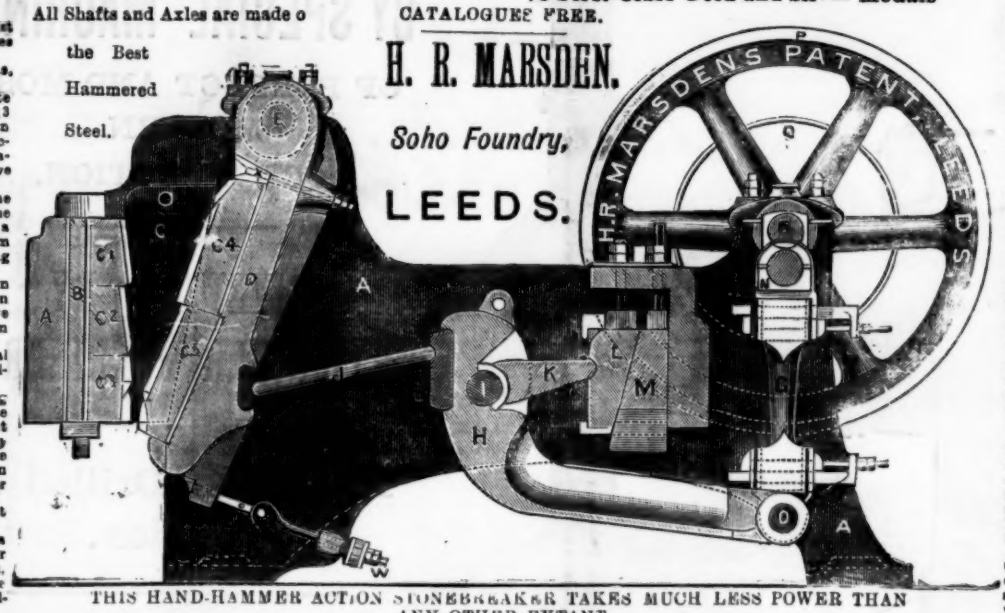

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